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This Issue in Brief

The first of three articles on railroad labor discusses trends affecting all employees of class I railroads, 1916 to 1933 (p. 1275). Revenue traffic in terms of index numbers based on 1926 was 84.4 in 1916, 52.0 in 1932, 46.8 in March 1933, and 60.3 in July 1933. The index numbers of total man-hours were 114.8 in 1916, 50.5 in 1932, 46.7 in March 1933, and 49.8 in July 1933. During the rapid decline of traffic, the work required for maintaining traffic facilities prevented a decrease in employment equal to the decrease in traffic, although technological changes reduced the amount of work required. With the upturn in amount of traffic, a comparatively small increase in employment is required.

The report to the Secretary of Labor of the United States observers appointed by President Roosevelt to attend the International Labor Conference in June 1933 is given in an article beginning on page 1290. It includes a discussion of the report to the conference of the Director of the International Labor Office; the activities of the International Labor Organization in regard to the 40-hour week; the draft conventions on abolition of fee-charging employment agencies, and on social insurance; and the importance of United States participation in the discussions of the International Labor Conferences.

An analysis of fluctuation of employment in Ohio in 1931 and 1932, with comparative figures for previous years, is given in an article beginning on page 1307. This analysis shows that in 1932 employment of wage earners, clerical employees, and salespeople (not traveling) in 40,134 establishments varied 8.4 percent between the month of highest employment (February) and the month of lowest employment (August); in 1931 the variation between the month of highest employment (May) and the month of lowest employment (December) in 43,168 establishments was 10.8 percent. A decrease of 15.8 percent in maximum employment took place between 1931 and 1932.

A descriptive analysis of the employment conditions normally prevailing in the longshore industry was prepared by the United States Department of Labor at the request of the deputy administrator of the shipping code. At the same time, the Department of Labor presented a plan for the decasualization of longshore labor, intended to do away with many of the injustices to labor now prevailing on the waterfronts of the majority of ports in the United States. Present employment conditions are more chaotic and the earnings of longshoremen are much lower than during the 1927–29 period covered by the Bureau of Labor Statistics survey as published in its Bulletin No. 550 (p. 1299).

An increase in both frequency and severity rates for accidents in manufacturing industries in 1932, as compared with 1931, is shown in the annual survey of the Bureau of Labor Statistics. The average number of workers injured in 1932 was 19.55 per 1,000,000 hours

worked, as against 18.85 in 1931, and the average time lost through such injuries in 1932 was 2.86 days per 1,000 hours worked, as against 2.59 in 1931 (p. 1388).

Sixteen States now have minimum wage laws. Of this number, seven were passed during the present year. In the majority of cases the 1933 laws follow the standard minimum wage bill sponsored by the National Consumers' League. The principal provisions of all of the minimum wage laws in effect in 1933 are given in this issue (p. 1344).

Foundry workers' earnings averaged 48.2 cents per hour and $14.25 per week in 1933 as compared with 60 cents per hour and $20.06 per week in 1931, and 62.4 cents per hour and $30.39 per week in 1929. Machine-shop employees earned an average of 54 cents per hour and $18.71 per week in 1933, 63.4 cents per hour and $24.22 per week in 1931, and 63.8 cents per hour and $32.06 per week in 1929. These and other details from a survey of wages and working hours in 364 foundries, having 19,763 wage earners, and 492 machine shops, with 41,960 wage earners, made in the spring of 1933 by the Bureau of Labor Statistics, are given in an article beginning on page 1459.

The redistribution of surplus or stranded populations, so as to make such citizens self-sustaining, is the program of the Subsistence Homesteads Division formed in the United States Department of the Interior. Colonies (urban, rural, or agricultural) will be formed in which subsistence will be drawn partly from the homestead garden plot and partly from part-time employment in industries set up within the colony. The projects are experimental only and the sites are to be chosen not on the geographical basis, but with reference to the principal "problem areas" in the United States. Two projects are under way, one a colony being built in West Virginia, the other a subsistence-homestead project being carried on through a self-help organization formed in Dayton, Ohio, by unemployed of that city (p. 1327).

The downward trend in child labor which has been evident for the past decade continued during 1932, according to a survey by the United States Children's Bureau. In the States and cities reporting, 50,233 children, 14 and 15 years of age, obtained first regular employment certificates and left school to go to work. In comparable areas, the number of certificates issued in 1932 was 62 percent less than in 1929 and 26 percent less than in 1931, showing that it was becoming increasingly difficult for children to find employment (p. 1361).

Industrial hygiene was the subject of four sectional meetings of the American Public Health Association convention at Indianapolis in October. Problems connected with the development of silicosis among workers subjected to exposure to silica dust were given special attention, this disease being of widespread interest at the present time from the standpoint both of its seriousness and of its importance in the field of workmen's compensation. Other subjects discussed at these meetings included industrial dermatoses; poisoning by petroleum distillates; cyanide poisoning; effects of exposure to carbon tetrachloride, particularly its effects upon the eyes; pulmonary asbestosis; and a new X-ray mass procedure for the discovery of early tuberculosis in industry (p. 1377).

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Productivity, Hours, and Compensation of Railroad Labor

Part 1. All Employees

By WITT BOWDEN, OF THE UNITED STATES BUREAU OF LABOR STATISTICS

THIS is the first of a series of three articles dealing with the trends of employment, productivity, and compensation in railroad transportation, and the principal factors affecting these trends. The first article deals with all employees and presents underlying data regarding revenue traffic, operating revenues and expenses, total compensation, and the maintenance of facilities for revenue traffic. The second article will analyze the principal classes of employees other than those concerned directly with transportation and will describe some of the important changes, especially those of a technological nature, affecting the productivity and status of these employees. The third article will deal in a similar manner with train, engine, and yard crews, dispatchers, and other classes of employees connected more directly with transportation.

Conditions Affecting Railroad Labor

RAILROAD labor has been affected by conditions which distinguish it in important respects from other labor, particularly in manufacturing and trade. Congress and the courts have long held that railroad transportation is "affected with a public interest" to a degree which warrants detailed regulation. The States as well as the Federal Government have limited the freedom of railroad companies in extending or curtailing facilities for traffic, in reducing the size of train and engine crews, in fixing the hours and conditions of labor, and in adjusting controversies with employees. Public regulation and the peculiar nature of the industry require the maintenance of minimum facilities regardless of the amount of traffic. As a result, hours, wages, and volume of employment in this industry are less flexible in their adaptation to changes in volume of business than in the case of many private enterprises. The existence of comparatively strong labor organizations has contributed to the same result.

Because of these conditions, the effects of technological changes in the displacement of labor are restricted, during a period of declining traffic, by the comparative inelasticity of the amount of labor. When traffic is light, the services required for maintaining traffic facilities cannot be reduced proportionately, especially in the case of such classes of labor as passenger employees, train dispatchers, and the

executive and clerical staffs. When the amount of traffic increases, the effects of technological changes are at once apparent in a comparatively slight increase in the amount of employment, since the facilities for handling a small volume of traffic are substantially the same as are required for carrying additional passengers and freight. The effects of technological changes on the amount of labor are therefore to be found not so much in the productivity of labor in terms of revenue traffic as in the smaller amount of labor required for maintaining traffic facilities.

Technological improvements have been extremely varied, and have made possible the maintenance of traffic facilities and the handling of a given amount of traffic with a constantly diminishing amount of labor. Locomotives and cars have been increased in size, capacity, durability, and ease of operation. Rails and ties have been improved as to quality of materials, durability, and resistance to impact of rolling stock. Roadbeds have been made sturdier and less dependent on maintenance work. Mechanical devices, such as mobile power units, rail layers, tie tampers, and track and right-of-way cleaners, have greatly reduced the amount of work required for the maintenance of way and structures. In the maintenance of equipment and stores, the amount of work has been reduced by the improved quality and capacity of engines and cars and by the modernizing of machine shops, car shops, roundhouses, etc. In connection with communications and the control of train movements, the principal changes have involved automatic signals, interlocking plants, and centralized traffic control for combining the functions of issuing train orders and the handling of signals and switches. Highway-crossing protection has included the extension of automatic signals and grade separations. Administrative and clerical employees have been most vitally affected by office appliances, such as calculating machines, by methods of management, and by mergers and consolidations.

Employment and Compensation

THE combined effects of technological and managerial changes, and of changes in the amount of traffic, on the amount of employment are apparent in the index numbers of revenue traffic and man-hours of all employees. With 1926 as the base year, the index number of passenger and freight traffic combined was 84.4 in 1916, while the index number of man-hours was 114.8. By 1932 the index number of revenue traffic had fallen to 52, and that of man-hours to 50.5. By July 1933 the index number of revenue traffic had risen to 60.3 as compared with July 1926, while that of man-hours in July 1933 was virtually the same as for 1932, or 49.8. The index number of revenue traffic in July 1933, as compared with the year 1916, showed a decline of only 28.6 percent; while the index number of man-hours showed a decline of 56.6 percent. The exclusion of executive groups would show an even greater proportionate decline of man-hours.

The average number of hours per week of all employees was 60.6 in 1916. The adoption of the 8-hour day reduced the average hours per week to 50.6 in 1919; and part time after 1929 further lowered the average, by 1932, to 42. During the period of the war the average annual compensation per employee underwent a series of increases from $892 in 1916 to $1,820 in 1920. Thereafter it ranged somewhat below this amount till 1930, and fell sharply by 1932 to $1,465. The

compensation of the wage-earning classes declined more sharply than that of the executive groups. The compensation of all except the principal executive groups formed 94.60 percent of the total compensation in 1916, 96.57 percent in 1918, and only 91.65 percent in 1932. The percentage of hours worked by all except executive groups remained much more nearly constant throughout the period.

Revenue Traffic and Facilities for Maintaining Traffic

THE usually accepted unit of passenger service is the passenger-mile, that is, the carrying of 1 passenger 1 mile. Similarly, in freight service the basic unit of service is the ton-mile, the carrying of 1 ton 1 mile. In combining passenger and ton miles, passenger-miles may be weighted in accordance with their approximate comparative importance and added to ton-miles, the sum commonly being described as revenue traffic units.

The service rendered by employees in maintaining facilities for revenue traffic tends to increase or decrease with fluctuations in the amount of revenue traffic, but the ratio is far from constant, especially in the handling of passenger traffic, for trains must be run and tracks and other facilities for service must be maintained whether revenue traffic is large or small. Changes in the volume of revenue traffic of class I railroads,[1] 1916 to 1932, and in the various kinds of services rendered in maintaining facilities for revenue traffic, are compared in table 1.

TABLE 1.—COMPARISON OF REVENUE TRAFFIC WITH SPECIFIED TYPES OF WORK DONE BY EMPLOYEES, CLASS I RAILROADS, 1916 TO 1932

[Based on reports to Interstate Commerce Commission]

Year	Revenue traffic (millions)			Car-miles (transportation service)			Transportation traffic units [2] (millions)	Rails laid (tons)	Cross-ties laid in replacements (thousands)	Bridge and switch ties laid in replacements (thousands)	Train-miles	
	Passenger-miles	Ton-miles	Traffic units [1]	Passenger service (millions)	Freight service (millions)	Total (millions)					Passenger trains (thousands)	Freight trains (thousands)
1916	34,586	362,444	452,368	3,426	23,265	26,691	----------	----------	----------	----------	576,094	617,606
1917	39,477	394,465	497,105	3,507	23,334	26,840	----------	2,046,575	79,070	208,526	575,500	631,188
1918	42,677	405,379	516,338	3,307	22,808	26,115	----------	1,883,393	76,139	222,927	529,444	616,151
1919	46,358	364,293	484,825	3,469	21,404	24,873	----------	2,335,300	80,903	248,440	539,803	549,657
1920	46,849	410,306	532,113	3,637	23,246	26,883	----------	2,506,961	86,829	246,196	561,633	607,508
1921	37,313	306,840	403,853	3,520	20,358	23,877	1,484,933	2,588,313	86,522	256,288	554,805	510,292
1922	35,470	339,285	431,507	3,466	21,358	24,823	1,543,379	2,618,566	86,642	258,186	541,275	534,655
1923	37,957	412,727	511,414	3,635	25,618	29,253	1,783,994	3,138,972	84,435	277,615	560,980	620,330
1924	36,091	388,415	482,252	3,696	25,032	28,728	1,749,879	3,184,536	83,073	291,288	566,013	579,571
1925	35,950	413,814	507,285	3,795	26,833	30,628	1,846,853	3,484,641	82,718	282,628	569,765	591,582
1926	35,478	443,746	535,988	3,886	28,603	32,488	1,953,620	3,818,127	80,746	275,972	573,627	610,980
1927	33,650	428,737	516,226	3,881	28,396	32,277	1,936,401	4,235,041	78,340	259,997	568,538	588,081
1928	31,601	432,915	515,079	3,849	28,973	32,822	1,952,670	4,175,627	77,371	269,149	561,600	579,809
1929	31,074	447,322	528,114	3,906	29,745	33,651	2,009,039	4,018,570	74,679	250,063	560,692	589,319
1930	26,815	383,450	453,168	3,727	26,335	30,062	1,816,053	3,002,131	63,354	235,315	538,709	515,131
1931	21,894	309,225	366,150	3,318	22,223	25,541	1,557,218	1,879,200	51,502	208,985	480,367	439,381
1932	16,975	234,320	278,454	2,800	17,516	20,316	1,261,738	852,742	59,190	140,566	414,383	362,798

[1] Revenue passenger-miles weighted by 2.6 plus revenue ton-miles.

[2] The formula for transportation traffic units or equated gross ton-miles was developed by the American Railway Engineering Association, and in its simplest form consists of freight ton-miles (including cars) ×1; freight locomotive ton-miles ×2; and passenger car miles ×144. See A.R.E.A., *Proceedings*, vol. 31, pp. 1144–1145; and A.R.E.A., *Manual*, 1929, pp. 1421–1435. See also testimony of Otto Beyer, in Interstate Commerce Commission, *Ex parte 106*, vol. 6, p. 2070 and *passim* (hearings on proposed 6-hour day).

[1] Class I railroads are those with annual operating revenues above $1,000,000. Of the total line mileage, they operated 89.7 percent in 1916, 91.6 percent in 1926, and 93.2 percent in 1931. In regard to average number of workers, they employed 96.8 percent in 1916, 97.7 percent in 1926, and 98.1 percent in 1931.

TABLE 1.—COMPARISON OF REVENUE TRAFFIC WITH SPECIFIED TYPES OF WORK DONE BY EMPLOYEES, CLASS I RAILROADS, 1916 TO 1932—Continued

Index numbers (1926=100)

Year	Revenue passenger-miles (millions)	Revenue ton-miles (millions)	Revenue traffic units (millions)	Car-miles (transportation service)			Transportation traffic units (millions)	Rails laid (tons)	Cross-ties laid in replacements (thousands)	Bridge and switch ties laid in replacements (thousands)	Train-miles	
				Passenger service (millions)	Freight service (millions)	Total (millions)					Passenger trains (thousands)	Freight trains (thousands)
1916	97.5	81.7	84.4	88.2	81.3	82.2					100.4	101.4
1917	111.3	88.9	92.7	90.2	81.6	82.6		53.6	97.9	75.6	100.3	103.3
1918	120.3	91.4	96.3	85.1	79.7	80.4		49.3	94.3	80.8	92.3	100.8
1919	130.7	82.1	90.5	89.3	74.8	76.6		61.2	100.2	90.0	94.1	90.0
1920	132.0	92.5	99.3	93.6	81.3	82.7		65.7	107.5	89.2	97.9	99.4
1921	105.2	69.1	75.3	90.6	71.2	73.5	76.0	67.8	107.2	92.9	96.7	83.5
1922	100.0	76.5	80.5	89.2	74.7	76.4	79.0	68.6	107.3	93.6	94.4	87.5
1923	107.0	93.0	95.4	93.5	89.6	90.0	91.3	82.2	104.6	100.6	97.8	101.5
1924	101.7	87.5	90.0	95.1	87.5	88.4	89.6	83.4	102.9	105.5	98.7	94.9
1925	101.3	93.3	94.6	97.7	93.8	94.3	94.5	91.3	102.4	102.4	99.3	96.8
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	94.8	96.6	96.3	99.9	99.3	99.3	99.1	110.9	97.0	94.2	99.1	96.3
1928	89.1	97.6	96.1	99.1	101.3	101.0	100.0	109.4	95.8	97.5	97.9	94.9
1929	87.6	100.8	98.5	100.5	104.0	103.6	102.8	105.2	92.5	90.6	97.7	96.5
1930	75.6	86.4	84.5	95.9	92.1	92.5	93.0	78.6	78.5	85.3	93.9	84.3
1931	61.7	69.7	68.3	85.4	77.7	78.6	79.7	49.2	63.8	75.7	83.7	71.9
1932	47.8	52.8	52.0	72.1	61.2	62.5	64.6	22.3	48.5	50.9	72.2	59.4

Table 1 shows an increase in revenue passenger-miles from 34,586,000,000 in 1916 to 46,849,000,000 in 1920, with an almost constant decline thereafter to 16,975,000,000 in 1932. Revenue ton-miles varied much less widely, ranging from 362,444,000,000 in 1916 to a peak of 447,322,000,000 in 1929, and declining to 234,320,000,000 in 1932. The weighted combination of passenger and freight traffic reached its peak of 535,988,000,000 revenue traffic units in 1926.

The columns of the table which deal with car-miles and other indications of the amount of service rendered in maintaining revenue traffic facilities, show a smaller variation, except for the recent rapid decline in the number of rails laid, and, to a less extent, in the number of ties laid.

The index numbers, in the second section of the table, indicate more concisely the comparative changes.

TABLE 2.—COMPARATIVE IMPORTANCE OF THE REVENUE PASSENGER-MILE AND THE REVENUE TON-MILE AS INDICATED BY RATIOS OF DIRECT LABOR REQUIRED AND OF REVENUE, 1916 TO 1932

Year	Labor ratios [1]	Revenue ratios [2]	Year	Labor ratios [1]	Revenue ratios [2]
1916	3.2	2.9	1925	3.7	2.7
1917	2.9	2.9	1926	3.9	2.7
1918	2.7	2.8	1927	4.1	2.7
1919	2.6	2.6	1928	4.5	2.6
1920	2.7	2.6	1929	4.6	2.6
1921	3.2	2.4	1930	5.2	2.6
1922	3.2	2.6	1931	5.6	2.4
1923	3.2	2.7	1932	5.8	2.1
1924	3.6	2.7			

[1] Ratios of time in man-hours of road passenger service per revenue passenger-mile to time in man-hours of road freight service per revenue ton-mile.

[2] Ratios of average receipts per revenue passenger-mile to average receipts per revenue ton-mile.

In the weighting of revenue passenger-miles for combining with revenue ton-miles, the usual method has been to multiply the number of passenger-miles by 3. There was at one time ample justification for this weighting factor, as is indicated by table 2.

The first column of table 2 gives the ratios, from 1916 to 1932, of the average amount of time in man-hours required by road passenger employees for an average revenue passenger-mile to the average man-hours required by road freight employees for an average revenue ton-mile. The second column of the table gives the ratios of average receipts per revenue passenger-mile to average receipts per revenue ton-mile. During the earlier part of the period, each of the two sets of ratios ranged around 3, the labor ratio being somewhat higher than the revenue ratio. During the later part of the period, the labor ratio rose rapidly until in 1932 it was almost double the figure for 1916—5.8 in 1932 as compared with 3.2 in 1916. The revenue ratio, on the other hand, varied only slightly, ranging from 2.9 in 1916 to 2.1 in 1932, with an average of 2.6 for the 17 years.

The rise in the ratio of road passenger man-hours to road freight man-hours is largely a result of the extreme decline in revenue passenger-miles in recent years. The index numbers of revenue passenger-miles (the first column of table 1) show a rapid rise from 1916 to 1920 and a precipitate decline, especially since 1929, to little more than a third of the figure for 1920. Revenue freight traffic also declined, but much less rapidly and with fewer extreme fluctuations.

From the point of view of the users of railroad services, a passenger-mile on the average means essentially the same in 1932 as in 1916; and the same is true of the ton-mile. The problem of weighting is therefore to ascertain the approximate importance of a passenger-mile as compared with a ton-mile throughout the period. In years when there was a comparative stability in the proportion of passenger traffic to freight traffic the labor ratio tends to confirm the validity of the revenue ratio as a basis for weighting. The average of the revenue ratios for the entire period (2.6) is therefore used. The combined passenger- and ton-miles, with passenger-miles weighted by 2.6, are termed revenue traffic units.

The comparability of units of revenue traffic over a period of years is affected by several factors, such as types of commodities handled, changes in length of haul, and changes in quality of service. Changes in the relative percentages of the main types of commodities handled as classified by the Interstate Commerce Commission are shown in table 3.

TABLE 3.—CHANGES IN RELATIVE PERCENTAGES OF TONNAGE OF PRINCIPAL GROUPS OF COMMODITIES OF REVENUE FREIGHT ORIGINATED BY CLASS I RAILROADS, 1916 TO 1932, REPORTED TO INTERSTATE COMMERCE COMMISSION

[Total tonnage=100 percent]

Year	Products of agriculture	Animals and products	Products of mines	Products of forests	Manufactures and miscellaneous	All less-than-carload freight	Total revenue freight
1916	9.5	2.5	56.6	7.8	19.2	4.4	100.0
1920	8.8	2.1	56.7	8.0	20.1	4.2	100.0
1924	9.8	2.3	53.7	9.1	21.6	3.4	100.0
1928	9.2	2.0	54.1	7.5	24.2	2.9	100.0
1932	12.5	2.8	56.1	4.0	22.2	2.4	100.0

Products of mines, which constitute more than half of the total tonnage, maintained a practically constant ratio, ranging from 56.6 percent in 1916 to 53.7 percent in 1924 and 56.1 percent in 1932. The ratio of animals and products also remained virtually constant. Products of forests declined from a high ratio of 9.1 percent in 1924 to 4 percent in 1932. Less-than-carload freight also declined from 4.4 percent in 1916 to 2.4 percent in 1932. The amount of labor required per ton in handling less-than-carload freight is comparatively high, but this type of freight is comparatively small in amount. The proportions of products of agriculture and of manufactures and miscellaneous freight increased during the period, and the relative increase in manufactures and miscellaneous products was particularly significant because of the comparative importance of this type of freight (22.2 percent of the total tonnage in 1932) and because of the relatively large amount of labor required per ton. In general, the changes in the ratios are not so great as to impair the comparability of the revenue ton during the years 1916 to 1932, and insofar as the ratios have changed they indicate a trend toward types of freight requiring a comparatively large amount of labor per ton during the later years of the period.

Changes in the length of haul, on the other hand, indicate a relatively large amount of labor per passenger-mile and per ton-mile during the earlier years of the period 1916 to 1932. The average journey per passenger for all railroads increased from 33.58 miles in 1916 to 40.79 in 1926, and declined by 1932 to 35.36. The average haul per ton of freight in 1916 was 277.98 miles. During most of the period it ranged around 300 miles, but by 1932 had increased to 346.63 miles.

During the years 1916 to 1932 there were changes in the quality of service, which in turn would have entailed an increase in the amount of labor if there had been no technological improvements, and this tended to counteract the effects of increases in the length of haul in reducing the amount of labor required per ton-mile and per passenger-mile. There have been increased facilities for the preservation, transfer, speedy movement, and convenient delivery of freight. In the handling of passengers there have been changes, for example, in air conditioning, transfer service at terminals, and improved station facilities.

Work Done by Railroad Employees

THE ultimate economic basis on which the railroad system rests is revenue traffic. In the final analysis the product of railroad labor, and, therefore, its productivity, must be expressed in terms of revenue traffic as analyzed in the first three columns of table 1. But the amount of service rendered by employees to their employers does not vary exactly with the amount of revenue traffic, for trains must be run and other facilities for handling passengers and freight must be maintained whether revenue traffic is heavy or light. In order to measure the amount of service rendered to employers in maintaining revenue traffic facilities as distinguished from the amount of revenue traffic handled for patrons of the railroads, units other than passenger- and ton-miles must be used. Some of these units are included in table 1.

In the seventh column of table 1 is a unit based on a formula developed by the American Railway Engineering Association. This unit may be termed the transportation traffic unit. On the basis of data available in the reports of the Interstate Commerce Commission, transportation traffic units are computed by combining freight ton-miles, including cars, freight locomotive ton-miles multiplied by 2, and passenger car-miles multiplied by 144. By comparing the index numbers of transportation traffic units with those of total car-miles, it will be seen that there is no considerable divergence. The use of the transportation traffic unit as a measure of service rendered in maintaining railroad facilities must be qualified by the fact that facilities were not maintained in the same degree of excellence throughout the period. This is indicated in maintenance-of-way work by the decline in the number of rails laid in 1931 and 1932, and to a less extent, by the decline in the number of ties laid, although needed additions and replacements have been reduced by technological changes.

There is much work that cannot be reduced to uniform units in terms of the particular function performed. This is true, for example, of supervisory work, the dispatching of trains, and, with minor exceptions, clerical work. It is indicated further by the fact that workers are often shifted from one task to another with no common unit of measurement except their contributions to the handling of revenue traffic and the maintenance of traffic facilities.

Railway Operating Revenues and Expenses and Compensation of Employees

TABLE 4 contains figures of railway operating revenues and expenses and compensation of all employees, 1916 to 1932, together with ratios of operating revenues and of operating expenses to compensation. In the case of all of these items, switching and terminal companies are excluded, 1916 to 1920, and included, 1921 to 1932.

TABLE 4.—RAILWAY OPERATING REVENUES AND EXPENSES AND EMPLOYEE COMPENSATION, CLASS I RAILROADS,[1] 1916 TO 1932

[Based on reports to Interstate Commerce Commission]

Year	Railway operating revenues	Railway operating expenses	Compensation of all employees		
			Amount	Percent of operating revenues[2]	Percent of operating expenses
1916	$3,596,865,766	$2,357,398,412	$1,468,576,394	40.8	62.3
1917	4,014,142,748	2,829,325,124	1,739,482,142	43.3	61.5
1918	4,880,953,480	3,971,870,043	2,606,284,245	53.4	65.6
1919	5,144,795,154	4,378,285,227	2,828,014,440	55.0	64.6
1920	6,178,120,978	5,830,620,492	3,681,801,193	59.6	63.1
1921	5,568,505,710	4,602,116,253	2,801,489,120	50.3	60.9
1922	5,617,790,944	4,455,475,060	2,669,180,772	47.5	59.9
1923	6,356,317,144	4,942,864,843	3,043,161,163	47.9	61.6
1924	5,985,360,729	4,557,623,052	2,867,564,802	47.9	62.9
1925	6,188,739,024	4,584,365,366	2,900,107,384	46.9	63.3
1926	6,451,418,163	4,718,150,021	2,990,441,936	46.4	63.4
1927	6,206,237,873	4,626,130,981	2,953,211,375	47.6	63.8
1928	6,185,174,116	4,478,005,682	2,862,099,609	46.3	63.9
1929	6,355,176,052	4,557,168,986	2,940,868,690	46.3	64.5
1930	5,342,485,910	3,975,709,442	2,590,274,843	48.5	65.2
1931	4,236,425,316	3,259,457,310	2,127,181,287	50.2	65.3
1932	3,161,928,659	2,429,385,917	1,535,927,792	48.6	63.2

[1] Switching and terminal companies are excluded 1916 to 1920, and included 1921 to 1932.

[2] In March 1933 compensation of all employees rose to 51 percent of railway operating revenues, but by July 1933 it had fallen to 41.37 percent.

Railway operating revenues rose from $3,597,000,000 in 1916 to $6,451,000,000 in 1926 and by 1932 had fallen to $3,162,000,000. Operating expenses in 1916 were $2,357,000,000 and in 1932 were $2,429,000,000, with slighter variations than in the case of operating revenues during the intervening years. Total compensation to employees, including the salaried classes, shows a trend remarkably similar to that of railway operating expenses, as is indicated by the last column of table 4. The ratios of compensation to operating revenues showed greater variation. In 1932 the ratio was 48.6 percent as compared with 40.8 percent in 1916. The changes in railway operating revenues and in employment in 1933 led to a further rise in the ratio of compensation to revenues to 51 percent in March, and to a decline, by July, to 41.37 percent.

Conditions Affecting Employment and Productivity

A CHANGE affecting the average number of hours per employee was the introduction of the 8-hour day. This was applied to shop-craft employees in the southeastern district before Federal control began (under the Adamson Act), on December 28, 1917. The Adamson Act embodied the principle of the 8-hour day, beginning January 1, 1917, but the extensive application of the principle was postponed until after the war-time emergency. In estimating the number of hours worked by employees on a daily basis, the Interstate Commerce Commission computes each day as 10 hours up to and including 1918, and as 8 hours thereafter. The 8-hour day has not only reduced the average number of hours per employee, but has tended to increase the average output per man-hour.

Changes in the amount of revenue traffic (table 1) affect the number of employees and of man-hours and also the average output per employee and per man-hour. The effect on average output is due to the impossibility of increasing or reducing employment in exact proportion to fluctuations in the amount of revenue traffic. But the average output per man-hour has been increased primarily by means of technological improvements, mergers, and changes in the personal efficiency of employees. Various technological changes will be discussed in later articles in connection with particular classes of employees. Some of the effects of these circumstances, especially the influence of technological changes on operating conditions, are indicated in table 5.

There was an increase in the number of steam locomotives from 60,990 in 1916 to 65,006 in 1924, and thereafter a decline to 52,492 in 1932. More significant was the continuous increase in the average tractive capacity (in pounds) of steam locomotives from 33,188 in 1916 to 46,299 in 1932. The use of electric locomotive units more than doubled, the number in 1916 being 319 and in 1932, 725. The increased efficiency of locomotives, as well as the declining amount of labor necessary in operating them, is indicated by the reduction in the number of pounds of coal per thousand gross ton-miles from 162 in 1921 to 123 in 1932. The average freight-train speed between terminals increased from 10.3 miles per hour in 1920 to 15.5 in 1932. The average capacity of freight cars increased from 41 tons in 1916 to 47 in 1932. The number of car-miles of freight cars per train-mile increased from 36.6 in 1920 to 48.9 in 1930, declining somewhat to 44.8 in 1932. The number of gross ton-miles of freight per train-

hour, excluding locomotives, almost doubled, increasing from 14,877 in 1920 to 26,064 in 1932. The statistics of revenue traffic given in the last three columns of table 5 indicate the effects of declining volume of revenue traffic on the utilization of facilities for handling traffic. The average number of ton-miles of revenue freight per train-mile and per locomotive-mile increased constantly, with the exception of 1921, to the year 1929, and thereafter declined materially. The average number of revenue passenger-miles per train-mile in 1916 was 57 and remained above this level until 1928, when it declined by 1932 to 40.

TABLE 5.—CHANGES IN ROLLING STOCK AND OPERATING CONDITIONS AFFECTING PRODUCTIVITY OF RAILROAD LABOR, CLASS I RAILROADS, 1916 TO 1932

[Based on reports to Interstate Commerce Commission]

Year	Steam locomotives		Electric locomotive units	Pounds of coal per 1,000 gross ton-miles (freight)	Average freight-train speed between terminals	Average capacity of freight cars	Car-miles (freight) per train-mile (including caboose)	Gross ton-miles (freight) per train-hour (excluding locomotive)	Average number of ton-miles of revenue freight		Average number of revenue passenger-miles per train-mile
	Number	Average tractive capacity							Per train-mile	Per locomotive-mile	
		Lbs.				*Tons*					
1916	60,990	33,188	319			41.0			560.24	488.53	57
1917	61,533	33,932	342			41.5			597.29	521.05	65
1918	63,531	34,995	343			41.6			628.49	546.35	76
1919	64,618	35,789	350			41.9			630.93	555.83	82
1920	64,368	36,365	364		10.3	42.4	36.6	14,877	646.87	571.17	80
1921	64,585	36,935	364	162	11.5	42.5	38.4	16,555	578.71	511.03	67
1922	64,140	37,441	372	163	11.1	43.1	38.4	16,188	611.06	538.78	65
1923	64,939	39,177	379	161	10.9	43.8	39.9	16,764	643.91	565.36	67
1924	65,006	39,891	352	149	11.5	44.3	41.7	18,257	647.06	573.04	63
1925	63,612	40,666	362	140	11.8	44.8	43.8	19,685	675.45	596.11	63
1926	62,342	41,886	419	137	11.9	45.1	45.2	20,692	701.48	617.45	61
1927	60,895	42,798	449	131	12.3	45.5	46.5	21,940	702.41	617.82	59
1928	58,845	43,838	596	127	12.9	45.8	48.1	23,600	718.32	631.11	56
1929	56,936	44,801	601	125	13.2	46.3	48.6	24,539	729.73	640.60	55
1930	55,875	45,225	618	121	13.8	46.6	48.9	25,837	711.38	628.73	49
1931	54,385	45,764	670	119	14.8	47.0	47.9	26,721	664.23	592.63	45
1932	52,492	46,299	725	123	15.5	47.0	44.8	26,064	598.32	535.29	40

Table 5 indicates in general a significant increase in the efficiency of the facilities for handling revenue traffic, but a decline in recent years in the extent to which the facilities for handling traffic could be utilized because of the declining amount of revenue traffic. In other words, technological improvements have tended to increase the average output per man-hour in terms of revenue traffic, but this increase has been in part counteracted by the falling off of revenue traffic.

Nature of Available Employment Data

IN THE statistics compiled by the Interstate Commerce Commission, detailed information regarding switching and terminal companies was not included for the years 1917 to 1920, but is available for 1916 and was included in the monthly wage reports from 1921 to 1932. In table 6, percentage factors based on statistics for 1916 and 1921 to 1932 were used to include estimates for class I switching and terminal companies in order to make the data in the table comparable for the earlier and later years of the period 1916 to 1932. These percentage

factors apply only to the number of employees and to the number of hours worked. For all classes of labor combined, the proportion of labor employed by switching and terminal companies is comparatively insignificant, but for certain groups, as yard-service employees, it is large enough to affect materially the comparability of the data. In the portions of table 6 based on operating revenues and compensation of employees, switching and terminal companies are omitted for the years 1916 to 1920, as the ratios based upon compensation and operating revenues are not affected by the omission.

In table 6, hours are expressed in terms of time worked. The reports to the Interstate Commerce Commission from 1916 to June 30, 1921, were in the form of time worked. After July 1, 1921, both time worked and time paid for are shown in the monthly wage reports. In order to make the data comparable for the entire period, time worked is used in table 6 throughout the period. The ratios of time worked to time paid for are comparatively constant, although for certain groups the tendency has been in the direction of a slight increase in the proportion of time paid for as compared with time worked.

The most serious problem in a study of railroad labor by groups of employees for a period beginning earlier than 1921 is in connection with changes in the classification of employees. Changes were made on July 1, 1921, and on January 1, 1933. Before July 1, 1921, the number of groups was 68; from July 1, 1921, to December 31, 1932, 148; and since January 1, 1933, 128. Analysis of these changes makes possible a continuous comparison before and after July 1, 1921, of only a limited number of groups. In the case of employees described in table 6 as executive groups, the older groups 1 to 4 of the Interstate Commerce Commission's reports were described as general officers and division officers. In the new classification these were distributed among 19 groups, the first two groups being described after July 1, 1921, as executives, officials, and staff assistants. But these two groups omitted roadmasters, general foremen, and various other officials who exercise important supervisory and executive functions, though not primarily at general and division headquarters. In order to make the groups numerically comparable before and after the change in classification, some who might properly be classed as executives were included in the second section of table 6.

Changes from 1916 to 1932

On the basis of available data comparable for the entire period from 1916 to 1932, table 6 presents the more important changes in employment, output in revenue traffic, and compensation of labor from 1916 to 1932.

The first section of table 6 deals with all employees. The second section gives a similar analysis of all employees except executive groups and is important primarily as indicating the status of ordinary employees as contrasted with the more highly salaried groups.

The average number of employees, other than executives, increased from 1,626,066 in 1916 to a peak of 2,004,277 in 1920, declined to 1,640,414 in 1921, and thereafter remained comparatively constant until 1929, when the number was 1,635,969, virtually the same as in 1916. The average in 1932 had fallen to 1,011,797. The index numbers of man-hours show a much greater decline than do those of

average number of employees, the former ranging from a high point of 126.8 in 1918, with 1926 as the base year, to 49.5 in 1932, and the latter ranging only from 114.1 to 57.5. This was largely because of the introduction of the 8-hour day, although since 1929 part time has also been an important factor. The average number of hours per employee per week fell from 60.5 in 1916 to 41.8 in 1932.

TABLE 6.—CHANGES IN EMPLOYMENT, OUTPUT IN REVENUE TRAFFIC, AND COMPENSATION OF LABOR, CLASS I RAILROADS, INCLUDING PRINCIPAL SWITCHING AND TERMINAL COMPANIES,[1] 1916 TO 1932

[Based on reports to Interstate Commerce Commission]

Year	Employees		Total hours worked		Average number of hours worked per employee—		Indexed ratios of output to man-hours[2] (1926=100)	Average compensation per employee per year[3]	Percentage ratios—	
	Average number middle of month	Index (1926=100)	Number	Index (1926=100)	Per year	Per week			Of group hours to total hours	Of group compensation to total compensation
All employees										
1916	1,664,271	92.2	5,243,907,840	114.8	3,151	60.6	73.5	$892	100.00	100.00
1917	1,750,946	97.0	5,494,681,920	120.3	3,138	60.3	77.1	1,004	100.00	100.00
1918	1,860,778	103.0	5,760,869,560	126.1	3,096	59.5	76.4	1,415	100.00	100.00
1919	1,933,374	107.1	5,084,970,310	111.3	2,630	50.6	81.2	1,478	100.00	100.00
1920	2,043,925	113.2	5,503,537,030	120.5	2,693	51.8	82.4	1,820	100.00	100.00
1921	1,680,187	93.0	4,136,624,847	90.6	2,462	47.3	83.2	1,667	100.00	100.00
1922	1,645,244	91.1	4,242,404,808	92.9	2,579	49.6	86.7	1,622	100.00	100.00
1923	1,879,770	104.1	4,856,988,021	106.3	2,584	49.7	89.7	1,619	100.00	100.00
1924	1,777,891	98.5	4,472,048,902	97.9	2,515	48.4	91.9	1,613	100.00	100.00
1925	1,769,099	98.0	4,458,702,308	97.6	2,520	48.5	97.0	1,639	100.00	100.00
1926	1,805,780	100.0	4,567,480,787	100.0	2,529	48.6	100.0	1,656	100.00	100.00
1927	1,760,999	97.5	4,416,148,893	96.7	2,508	48.2	99.6	1,677	100.00	100.00
1928	1,680,187	93.0	4,200,547,574	92.0	2,500	48.1	104.5	1,703	100.00	100.00
1929	1,686,769	93.4	4,234,805,886	92.7	2,511	48.3	106.3	1,743	100.00	100.00
1930	1,510,688	83.7	3,648,891,844	79.9	2,415	46.4	105.8	1,715	100.00	100.00
1931	1,278,175	70.8	2,937,370,320	64.3	2,298	44.2	106.2	1,664	100.00	100.00
1932	1,048,568	58.1	2,290,818,702	50.5	2,185	42.0	102.8	1,465	100.00	100.00
All employees except executive groups										
1916	1,626,066	92.5	5,119,374,306	115.1	3,148	60.5	73.4	863	97.63	94.60
1917	1,710,117	97.3	5,360,069,338	120.5	3,134	60.3	77.0	977	97.55	95.05
1918	1,823,748	103.8	5,639,014,978	126.8	3,092	59.5	76.0	1,394	97.88	96.57
1919	1,897,925	108.0	4,991,315,536	112.2	2,630	50.6	80.6	1,453	98.16	96.52
1920	2,004,277	114.1	5,396,461,941	121.3	2,692	51.8	81.8	1,788	98.05	96.36
1921	1,640,414	93.3	4,035,112,678	90.7	2,460	47.3	83.1	1,622	97.55	94.98
1922	1,604,176	91.3	4,140,296,400	93.1	2,581	49.6	86.5	1,575	97.59	94.66
1923	1,835,127	104.3	4,745,818,788	106.7	2,586	49.7	89.4	1,574	97.71	94.90
1924	1,732,262	98.5	4,359,523,710	98.0	2,517	48.4	91.8	1,564	97.48	94.46
1925	1,722,713	98.0	4,343,282,440	97.6	2,521	48.5	96.9	1,588	97.41	94.34
1926	1,757,298	100.0	4,447,075,407	100.0	2,531	48.7	100.0	1,604	97.36	94.26
1927	1,711,901	97.4	4,294,223,719	96.5	2,508	48.2	99.8	1,622	97.24	94.00
1928	1,630,925	92.8	4,078,346,384	91.7	2,501	48.1	104.8	1,645	97.09	93.72
1929	1,635,969	93.1	4,108,689,494	92.4	2,511	48.3	106.7	1,684	97.02	93.68
1930	1,461,140	83.2	3,526,833,242	79.3	2,414	46.4	106.7	1,647	96.65	92.91
1931	1,233,990	70.2	2,829,162,432	63.6	2,293	44.1	107.4	1,589	96.32	92.20
1932	1,011,797	57.5	2,201,733,332	49.5	2,176	41.8	105.0	1,391	96.09	91.65

[1] Switching and terminal companies estimated for 1917–20 on basis of statistics for 1916, 1921–32.

[2] For output in terms of revenue traffic, and also for indications of work done by different groups of employees, see table 1. Output as here used consists of revenue traffic units.

[3] Based for 1916–20 on employees and compensation of class I railroads excluding switching and terminal companies. For railway operating revenues, see table 4.

The trend of average output per man-hour in terms of revenue traffic is shown by the indexed ratios of the seventh column of table 6. With 1926 as the base year, the indexed ratio of revenue traffic to man-hours of all employees except executive groups in 1916 was 73.4; in 1931, 107.4 (the highest point); and in 1932, 105.0. These ratios represent the productivity of labor in the economic sense; that is in terms of revenue-producing traffic. The principal factors affecting these ratios have been technological changes and changes in the amount of revenue traffic. The latter factor has affected productivity, due to the fact that the amount of labor required to maintain facilities for handling revenue traffic is not entirely adaptable to changes in the amount of revenue traffic actually handled.

Because of this, it is necessary to emphasize again the fact that productivity in terms of the ultimate product of labor (i.e., in terms of revenue traffic) is not a measure of the effects of technological changes on labor. These effects are more adequately measured by the maintenance of traffic facilities than by the extent to which these facilities are utilized in the form of revenue traffic by patrons of the railroads. In regard to labor as a whole, the transportation traffic unit (the seventh column of table 1) is probably the most adequate measure of services rendered in maintaining facilities for handling revenue traffic. This unit is not available before 1921, but it is closely paralleled since 1921, and presumably before that date, by total car-miles (the sixth column of table 1). For all employees except executive groups the comparative ratios of revenue traffic units, transportation traffic units, and car-miles to the number of man-hours worked are shown in table 7.

TABLE 7.—COMPARATIVE INDEXED RATIOS OF REVENUE TRAFFIC UNITS, TRANSPORTATION TRAFFIC UNITS, AND CAR-MILES TO MAN-HOURS WORKED BY ALL EMPLOYEES, EXCEPT EXECUTIVE GROUPS, CLASS I RAILROADS, 1916 TO 1932 [1]

Year	Revenue traffic units to man-hours	Transportation traffic units to man-hours	Car-miles to man-hours
1916	73.4		71.4
1917	77.0		68.5
1918	76.0		63.4
1919	80.6		68.3
1920	81.8		68.2
1921	83.1	83.8	81.0
1922	86.5	84.9	82.0
1923	89.4	85.6	84.3
1924	91.8	91.4	90.2
1925	96.9	96.8	96.6
1926	100.0	100.0	100.0
1927	99.8	102.7	102.9
1928	104.8	109.1	110.1
1929	106.7	111.3	112.1
1930	106.7	117.3	116.6
1931	107.4	125.3	123.6
1932	105.0	130.5	126.3

[1] For basic data, see tables 1, 6.

With 1926 as the base year, the indexed ratios of revenue traffic units to man-hours rose from 73.4 in 1916 to 83.1 in 1921, and to 107.4 in 1931, and declined to 105.0 in 1932. The ratios of transportation traffic units to man-hours ranged from 83.8 in 1921 to 130.5 in 1932. The ratios of car-miles to man-hours ranged from 71.4 in 1916 to 81.0 in 1921, and 126.3 in 1932.

Taking revenue traffic units as a measure of output and 1921 as the base year, and assuming a constant ratio of revenue traffic units to man-hours, the number of man-hours required in 1932 would have been about 2,782,000,000 instead of 2,201,000,000, the number actually employed.

Taking transportation traffic units as a measure of services rendered by employees in maintaining facilities for handling revenue traffic, and assuming a constant ratio of transportation traffic units to man-hours, the number of man-hours required in 1932 would have been about 3,429,000,000, instead of 2,201,000,000, the number actually employed. The difference, 1,228,000,000 man-hours, is an approximate indication of the effects of technological changes on the amount of employment. It appears, to be sure, that some work normally called for was deferred, as is indicated by the index numbers of ties laid and especially of rails laid (table 1). On the other hand, the decline in the amount of maintenance work was itself partly due to technological changes such as the treating of ties and the use of improved rails, rail fasteners, ballast, etc.

A comparison of revenue traffic units with transportation traffic units, car-miles, and other units indicating service rendered in maintaining traffic facilities, shows clearly that particular groups with comparatively low ratios of revenue traffic units to man-hours, as road passenger employees, may render services as essential as do other groups with comparatively high ratios, as maintenance-of-way employees.

The compensation and status of a particular group of employees as compared with other groups, therefore, cannot properly be based on productivity in terms of the ratios of revenue traffic to man-hours. But these ratios, particularly for labor as a whole, are significant as indicating productivity in ultimate terms of the economic basis of the transportation system; and for different groups of employees they indicate approximately the separate factors entering into the aggregate productivity, as well as the extent to which the effects of technological changes on man-hour output are counteracted by declining volume of revenue traffic and increased by expansion of traffic.

The last two columns of the second section of table 6 show the status of the wage-earning groups as to hours and wages as compared with the status of the executive groups. Hours worked by the wage-earning groups ranged from 98.16 percent of all hours in 1919 to 96.09 percent in 1932. Their compensation ranged from 96.57 percent of all compensation in 1918 to 91.65 in 1932. In other words, the status of the wage-earning groups was materially changed to their disadvantage, for their proportion of total hours declined only 2.1 percent, while their proportion of total compensation declined 5.1 percent.

Trends of 1933

For the purpose of comparing the trends of 1933 with those of earlier years, each month from January to July of 1933 is compared in table 8 with the same month of 1926. This comparison includes revenue traffic and railway operating revenues.

TABLE 8.—REVENUE TRAFFIC AND RAILWAY OPERATING REVENUES, CLASS I RAILROADS, INCLUDING SWITCHING AND TERMINAL COMPANIES, JANUARY TO JULY, 1926 AND 1933

[Based on reports to Interstate Commerce Commission

Month	Revenue passenger-miles		Revenue ton-miles		Revenue traffic units [1]		Railway operating revenues	
	Number (thousands)	Index numbers [2]	Number (thousands)	Index numbers [2]	Number (thousands)	Index numbers [2]	Amount	Index numbers [2]
January 1926	2,912,826	100.0	33,613,567	100.0	41,186,915	100.0	480,995,458	100.0
January 1933	1,167,284	40.1	18,008,036	53.6	21,042,974	51.1	229,167,996	47.6
February 1926	2,579,121	100.0	31,871,428	100.0	38,577,143	100.0	460,204,237	100.0
February 1933	1,044,797	40.5	17,308,578	54.3	20,025,050	51.9	214,122,352	46.5
March 1926	2,643,542	100.0	35,350,386	100.0	42,223,595	100.0	530,453,465	100.0
March 1933	997,264	37.7	17,365,755	49.1	19,759,189	46.8	220,186,649	41.5
April 1926	2,661,408	100.0	32,935,085	100.0	39,854,746	100.0	499,661,968	100.0
April 1933	1,088,046	40.9	17,794,457	54.0	20,623,377	51.7	227,593,659	45.5
May 1926	2,817,455	100.0	35,707,375	100.0	43,032,758	100.0	517,422,591	100.0
May 1933	1,169,983	41.5	19,817,961	55.5	22,859,917	53.1	258,350,694	49.9
June 1926	3,251,922	100.0	35,713,317	100.0	44,168,314	100.0	539,864,685	100.0
June 1933	1,495,135	46.0	21,538,389	60.3	25,425,740	57.6	281,763,566	52.2
July 1926	3,501,564	100.0	37,917,672	100.0	47,021,738	100.0	556,514,940	100.0
July 1933	1,633,153	46.6	24,105,508	63.6	28,351,732	60.3	297,571,730	53.5

[1] Revenue passenger-miles times 2.6 plus revenue ton-miles. See pp. 1277–1279.
[2] The index numbers are based on the monthly figures for 1926.

March 1933 was the month of lowest revenue traffic and railway operating revenues. In that month revenue passenger-miles were hardly more than a third of the number in March 1926 (the index number being 37.7), and revenue ton-miles declined less sharply to approximately half the March 1926 figure (index number, 49.1). Revenue traffic units in March 1933 had fallen to an index of 46.8, while railway operating revenues had declined to an index of 41.5. The index numbers for July 1933, with July 1926 as the base month, all show comparatively large increases. They were as follows: Revenue passenger-miles, 46.6; revenue ton-miles, 63.6; revenue traffic units, 60.3; and railway operating revenues, 53.5.

Table 9 shows changes in employment, output in terms of revenue traffic, and compensation of labor from January to July of 1926 and 1933.

The number of employees was smallest in March 1933, having fallen to 933,857 as compared with 1,745,414 in March 1926. By July 1933 the average number had risen to somewhat more than 1,000,000 employees. As compared with March 1926 the index number for March 1933, was 53.5; and for July 1933, 54.1. The status of employment, however, is better indicated by the number of man-hours paid for. As compared with 1926 the index number of man-hours in April fell to the low point of 45.9, and by July of 1933, as compared with July 1926, had risen only to 49.8.

In striking contrast with the slight rise in volume of employment is the rapid increase in the ratios of revenue traffic units to man-hours; and if executive groups were excluded, as in the second section of table 6, the ratios would be somewhat higher.

TABLE 9.—CHANGES IN EMPLOYMENT, OUTPUT IN REVENUE TRAFFIC, AND COMPENSATION OF ALL RAILROAD LABOR, CLASS I RAILROADS, INCLUDING PRINCIPAL SWITCHING AND TERMINAL COMPANIES, JANUARY TO JULY, 1926 AND 1933

[Based on reports to Interstate Commerce Commission]

Period	Employees		Hours paid for		Indexed ratios [1] of output to hours	Average compensation per employee per month
	Average number	Index numbers [1]	Number	Index numbers [1]		
January 1926	1,730,071	100.0	361,884,300	100.0	100.0	$139
January 1933	960,228	55.5	181,458,674	50.1	102.0	121
February 1926	1,733,004	100.0	337,910,597	100.0	100.0	132
February 1933	956,201	55.2	165,722,723	49.0	105.9	114
March 1926	1,745,414	100.0	383,493,721	100.0	100.0	143
March 1933	933,857	53.5	179,016,793	46.7	100.2	120
April 1926	1,783,411	100.0	374,486,020	100.0	100.0	136
April 1933	939,414	52.7	171,869,043	45.9	112.6	116
May 1926	1,808,728	100.0	379,731,634	100.0	100.0	136
May 1933	952,096	52.6	185,168,352	48.8	108.8	121
June 1926	1,833,621	100.0	386,895,047	100.0	100.0	136
June 1933	972,813	53.1	188,565,132	48.7	118.3	121
July 1926	1,857,219	100.0	394,584,433	100.0	100.0	137
July 1933	1,004,938	54.1	196,588,012	49.8	121.1	123

[1] The index numbers are based on the monthly figures for 1926.

Even during March, 1933, the month of greatest decline of revenue traffic (less than half of that of March, 1926, the index number being 46.8), the indexed ratio of revenue traffic units to man-hours, as compared with March 1926, stood at 100.2. By July 1933, as compared with July, 1926, it had risen to 121.1, although the index number of revenue traffic had risen only to 60.3. The facilities which must be provided for a small volume of revenue traffic suffice for a considerable expansion of traffic with an insignificant increase in the amount of employment. If the amount of labor employed in July 1933 had increased in the same proportion as the amount of revenue traffic (that is, if the output per man-hour in July 1933 had been the same as in July 1926), the number of man-hours required would have been about 237,500,000 instead of 196,588,000, the number actually employed. Since many of the most important recent technological changes occurred before 1926, and since these changes affect primarily only certain classes of railroad labor, it is apparent that any possible increase in the amount of traffic can hardly be expected, at least on the basis of present hours of labor, to reabsorb a large proportion of many types of workers formerly employed.

Report of United States Delegation at the International Labor Conference, June 1933

A DELEGATION of four official observers was appointed by President Roosevelt to attend the seventeenth session of the International Labor Conference held in Geneva June 8–30, 1933. The delegation was headed by Miss Mary Anderson, Director of the Women's Bureau, United States Department of Labor. The other members of the delegation were Edwin S. Smith, commissioner of labor of Massachusetts, William H. Stead, secretary of the Employment Stabilization Research Institute, University of Minnesota, and Hugh Frayne, general organizer of the American Federation of Labor. The report of the United States observers, which was submitted to the Secretary of Labor under date of August 15, follows.

Text of Report

THERE was a general feeling of cordiality and good will toward the delegation of the United States observers. It was stated by Mr. Butler, Director of the International Labor Office, that the presence of the United States delegation was one of the bright spots in this year's conference.

The delegation was seated in the center of the hall with the Government delegations. It was voted by the plenary session the first day of the Conference that the official observers should be given the right to participate in the discussion in the plenary sessions and in committees. The observers could not, of course, record their votes. Besides the United States, only Egypt was represented by official observers.

Resolution Adopted for Presentation to Economic Conference

In the early sessions of the Conference much interest was aroused by the discussion of a resolution that it was proposed to send to the World Economic and Monetary Conference.

In view of the failure of the London conference to attain any immediate realization of its objectives, it seems unnecessary in this report to describe fully the recommendations that were made to it by the International Labor Conference. The recommendations covered such points as the restoration of stable monetary conditions, national and international; prevention of future disastrous fluctuations of price levels; increase of the purchasing power of the workers; an international movement to increase expenditures for public works.

The significance of the resolution (which was adopted by 99 votes to 0) lies in the fact that for the first time in any large way the International Labor Conference went on record as officially urging certain courses to be pursued in the economic sphere.

One of the policies of the International Labor Conference, which certain elements in its membership have successfully insisted upon in the past, is that in its deliberations a sharp line should be drawn between "social" and "economic" subjects. In the opinion of these persons, principally the employers' group, it would appear, the International Labor Conference is properly concerned with the former class of questions and should steer clear of the latter. By the terms of any such separation of interest, unemployment insurance, let us say, would be considered a "social" question, whereas wage levels would be definitely held to be an "economic" subject. The Conference experience has shown that in practice this distinction has always been difficult to draw. Modern economic thinking finds the problem of social justice to the working people and the problem of an intelligent functioning of the economic system closely interwoven. By adopting the resolution to the Economic Conference, the International Labor Conference put itself on record in regard to a number of definitely "economic" subjects. In doing so it followed a course that may well mark an important precedent for its future activities.

Because of the interest that the United States, through President Roosevelt, had shown in the London conference, the American delegation was asked to participate in the discussion of the resolution. Mr. Smith was asked by Miss Anderson to address the Conference on this subject.

Discussion of the Director's Report

The Director's able and comprehensive report was devoted mainly to the social and economic aspects of the depression, especially: (1) Unemployment, its extent, causes, and the various measures of relief; (2) wages, reductions, purchasing power, and the late change of policy; (3) social insurance, effects of the depression, reduced incomes and increased expenditures, and the consequent amendments to laws and regulations.

The Director devoted a certain amount of attention to credit and currency. He gave an encouraging report of the Labor Organization. The 50 new ratifications in 1933 (the highest number since 1929), sent in by 21 countries, he spoke of as "a proof of the vitality of international labor legislation."

He described the history of the movement for the 40-hour week, and reminded the Conference that as far back as January 1931 the unemployment committee of the Governing Body invited the Labor Office to pay special attention to this desire of the workers' organizations. He spoke also of "the scorn and abuse with which the notion was first greeted."

Finally, the United States observers noted with special interest the Director's repeated references to international planning and cooperation. Is it possible to raise wages in one country, he asked, unless a corresponding increase takes place in competing countries? Is it possible to make wages the subject of international negotiations? Are truces against wage cuts, or international wage agreements, possibilities of the future? Can the consuming power of the masses in Asia and Africa be raised by international economic action?

In his concluding paragraphs the Director said:

> If unemployment is to be removed, economic balance preserved, and future economic disasters averted, it can only be achieved by international cooperation

for the more scientific direction of the world's economy. The pressure of events is steadily forcing the world to revise its old methods and to create the international organization capable of giving it prosperity under modern conditions. At a moment when many are disposed to doubt the efficacy of the international institutions which already exist, the inevitability of international action was never so apparent. From this fact may be derived the certitude that they will ultimately be recognized as a necessary part of the world order, whatever trials and vicissitudes they may be destined to undergo in the years immediately ahead.

The discussion of the Director's report took 3 days, after which an afternoon was devoted to the Director's reply. During the discussion an opportunity was given to the United States observers to address the plenary session and Miss Anderson and Mr. Frayne both did so. Much interest was shown in the National Industrial Recovery Act, which passed Congress while we were attending the Conference, particularly the establishment of such a system on a national scale where employers and labor, through their constituted representatives and in the various industries, might cooperate in a flexible system of establishing a code of maximum hours and minimum wages. It was pointed out by us that the maximum hours suggested had at no time exceeded 40 hours a week, while the minimum wage may vary with industry and locality. The representative of the employers' delegates asked us for details in regard to this system, which we were happy to furnish him. This experiment by the United States will be of great value in affecting any decision on a draft convention on hours and wages which may be adopted by the next International Labor Conference. In the Director's reply to the debate he pointed out that very fact to the delegates.

The 40-Hour Week

The first International Labor Conference, held in Washington in 1919 just after the war, passed a draft convention or labor treaty for a working day not longer than 8 hours. Sixteen countries ratified this treaty.

The next discussion on hours was that of the 40-hour week conference, specially called for this purpose by the International Labor Organization January last. At that conference the International Labor Office was asked to bring together all available data on this subject and present to the conference just held (June). These data are contained in what is called the "blue-gray" report, which is very comprehensive and informative.

The question came up before the plenary session as to whether a draft convention or recommendation on this subject should be adopted at the present session, or it should confine itself to consulting the governments and defer the adoption of definite international regulations until next year. This important matter was debated for 2 days. The report prepared by the Labor Office served as the basis of the discussion for these alternatives. It was argued by the workers that the January meeting was the first discussion, and that at the June session a convention or treaty should be formulated, adopted, and presented to the governments for ratification. The workers emphasized the need for maintaining the purchasing power of labor by keeping it in full work at full wages. They urged the shorter hours, not as a temporary expedient in a moment of crisis, but as the only measure that could combat the increased volume of unemployment caused, even in normal times, by the elimination of labor and

the consequences of mass production. They also emphasized the fact that present-day technique in production should be a powerful factor in preparing the way for a shortening of the working week.

The employers, supported by many government delegates, contended that the January meeting was only a preliminary one and could not be counted as a first sitting; that although the report prepared by the International Labor Office had much information, much more was necessary; that this is a far-reaching reform and heretofore no such reform had ever been proposed internationally that had not been tried by one or more countries first; that past conventions had always been based on a considerable amount of national experience; that the present sitting should be called the first sitting, and a committee should be appointed to formulate a questionnaire to be submitted to all countries. The employers, supported by many of the government delegates, voted for a committee to formulate a questionnaire.

The committee finally agreed to a questionnaire that should inquire not only into hours worked but into wages paid. This is very significant, because it was felt throughout the conference that the fixing of maximum hours of 40 a week could not be done unless wages were taken into consideration. It was felt that in countries where there were no safeguards through legislation and there was feeble trade-union organization, if a 40-hour week were adopted wages would go down very rapidly. Thus the convention on the 40-hour week, including information on wages, will be the dominant question before the International Labor Conference of next year.

We felt very keenly that the inability of the United States delegation to participate directly in this discussion and in voting had much bearing on the results of the discussion of the 40-hour week.

Work of Committees

The International Labor Conference reaches its conclusions through a system of committee discussions. Shortly after organization of the Conference the various members are assigned to one of half a dozen committees, each of which is responsible for formulating recommendations with respect to one of the major items on the agenda.

During at least half of the conference period there are no plenary sessions of the Conference, all of the time being given to committee work.

One of the committees that function at each convention is the committee on article 408. This is essentially a board of review, which checks over the ratifications of conventions and the enforcement of provisions of these conventions within the signatory nations, including the operation of laws and regulations set up in conformity with the conventions.

It is interesting to note that this committee does not hesitate to censure specifically certain governments for derelictions in carrying out the provisions of the convention. In several instances special commissions have been appointed to investigate situations in a given nation and to make recommendations to the International Labor Conference.

On the whole this "policing" function is effectively and frankly done and offers an example of "effective" international cooperation.

Draft Convention on Abolition of Fee-Charging Employment Agencies

One of the first draft conventions of the International Labor Conference adopted at the Washington conference in 1919 provided for the establishment of a national system of public employment offices in the signatory nations. This convention was widely ratified and most of the industrial nations have had several years of experience with public employment-office systems.

In some instances, as in Germany and Italy, these public offices have replaced all other agencies; in Italy the use of such public employment offices is compulsory with all employers.

As these countries have developed an adequate public employment-office system to cope with the problems of organizing the labor market, their attention has turned to the desirability of removing the evils attendant upon a competing system of private fee-charging employment agencies.

The question of international action looking toward the abolition of fee-charging employment agencies was placed on the agenda of the 1932 Conference and was given a first hearing at that time. During the ensuing year the staff of the International Labor Office prepared and circulated a comprehensive study of the situation in the various countries.

This year, after considerable discussion, the committee on this subject recommended a draft convention for adoption by the Conference.

This convention, as adopted and now subject to ratification by the various governments, provides, in brief, as follows:

1. Fee-charging agencies run with a view to profit are to be abolished within 3 years after ratification of convention.
2. Fee-charging agencies operated to service a special group and not for profit are to be closely supervised and controlled. (Such agencies as a Y.W.C.A. placement bureau operated on a cost basis would fall in this category.)
3. Free employment agencies of any character must be registered.

In the course of the discussion of the report of this committee Mr. Stead spoke to the Conference, outlining the proposed development of the cooperative Federal-State employment service under the provisions of the Wagner-Peyser bill.

Draft Conventions on Social Insurance

Only one other committee was engaged in final discussions and recommendations in this year's Conference. The Committee on Invalidity, Old-Age, and Widows' and Orphans' Insurance submitted a series of draft conventions on these subjects, designed to bring about uniformity in the provisions for this type of protection in the various countries. All of these conventions were adopted and when ratified should go far to eliminate inequalities in protection among the countries.

The economic helplessness of the factory and farm worker in face of unemployment, invalidity, and old age, and the economic plight of the widows and orphan children of wage earners were accorded a large amount of attention. The fruit of the deliberations of the Committee on Invalidity, Old-Age, Widows' and Orphans' Insurance set up by the Conference was the submittal of six separate draft

conventions on these subjects, each of which was adopted by a large majority. The tabulation of votes was as follows:

1. Draft convention concerning compulsory old-age insurance for persons employed in industrial and commercial undertakings or in the liberal professions, and for outworkers and domestic servants. For 106, against 5.
2. Draft convention concerning compulsory old-age insurance for persons employed in agricultural undertakings. For 84, against 17.
3. Draft convention concerning compulsory invalidity insurance for persons employed in commercial and industrial undertakings or in the liberal professions, and for outworkers and domestic servants. For 89, against 7.
4. Draft convention concerning compulsory invalidity insurance for persons employed in agricultural undertakings. For 75, against 18.
5. Draft convention concerning compulsory widows' and orphans' insurance for persons employed in industrial and commercial undertakings or in the liberal professions, and for outworkers and domestic servants. For 92, against 6.
6. Draft convention concerning compulsory widows' and orphans' insurance for persons employed in agricultural undertakings. For 73, against 18.

In each vote on these conventions the dissenting delegates were employer or government representatives. The government delegates most frequently dissenting were the representatives of the Argentine Republic, whose 2 delegates were recorded as against 4 of the 6 social-insurance conventions. One Argentine delegate voted against another of these six proposals. Other government delegates frequently dissenting represented Brazil, Portugal, and Yugoslavia.

Precedent for the adoption of the foregoing conventions is to be found in 2 conventions adopted in 1925 concerning accident insurance and occupational diseases and the 2 conventions on sickness insurance adopted in 1927. These conventions have been ratified by most of the leading industrial countries of Europe.

The Committee on Invalidity, Old-Age, Widows' and Orphans' Insurance was composed of 63 members, 21 each from the government, employer, and labor groups. The amount of time and thought that the committee gave to its task is indicated by the fact that on the subject of old-age insurance alone 16 sessions were held and 83 amendments to the text as drafted by the International Labor Office for the consideration of the Conference were proposed and discussed.

The six conventions are similar in their general character. They prescribe limits within which countries adhering to the conventions must frame their legislation. On the other hand, they permit considerable latitude on important points. For instance, in each of the six conventions it is provided that: "The pension shall, whether or not dependent on the time spent in insurance, be a fixed sum or a percentage of the remuneration taken into account for insurance purposes, or vary with the amount of the contributions paid."

Of specific provisions there are not very many. The old-age insurance convention provides that the age at which a person is entitled to a pension "shall not exceed 65." In regard to invalidity insurance it is stated that the qualifying period shall not exceed "60 contribution months, 250 contribution weeks, or 1,500 contribution days." Each convention provides that employers, employees, and the State shall make contributions. It is significant that it is stated in each convention that "the insurance scheme shall be administered by public authorities and not conducted with a view to profit."

In addition to adopting these six social insurance conventions the Conference approved, by a vote of 75 to 15, a series of recommendations concerning the principles of invalidity, old-age, and widows' and orphans' insurance in which some rather precise interpretations

are offered to clarify the intent of the draft conventions. For instance, in regard to pensions to orphans these recommendations state:

> Every child of school age who was dependent on a pensioner or insured person who died after completing the qualifying period should be entitled to a child's pension, and the pension should continue to be paid until the age of 17 if the child is continuing his general or vocational education, and even beyond this age if the child cannot by reason of infirmity earn his living.

Although unemployment insurance in some form is probably more universally in force among industrial nations than is invalidity, old-age, or widows' and orphans' insurance, the Conference was not prepared this year to adopt a draft convention on this subject. It did adopt, on recommendation of a committee established by it, a series of questions on unemployment insurance to be submitted to the governments. This procedure is the regular preliminary to the adoption of a draft convention in the next succeeding year.

In the report of the Committee on Unemployment Insurance and Various Forms of Relief for the Unemployed, the following résumé was given of action taken by previous International Labor Conferences on unemployment insurance:

> At the first session (Washington, 1919) a recommendation was adopted recommending: "That each member of the International Labor Organization establish an effective system of unemployment insurance, either through a government system or through a system of government subventions to associations whose rules provide for the payment of benefits to their unemployed members."
>
> At the same session a draft convention concerning unemployment was adopted, and article 3 of this draft convention provides that: "Members of the International Labor Organization which ratify this convention and which have established systems of insurance against unemployment shall, upon terms being agreed between the members concerned, make arrangements whereby workers belonging to one member and working in the territory of another shall be admitted to the same rates of benefit of such insurance as those which obtain for the workers belonging to the latter."
>
> The 1926 session of the Conference adopted a resolution by which the International Labor Office was requested to increase to the utmost its efforts to secure a wider adoption of the measures proposed in the recommendations and conventions on unemployment adopted at previous sessions, including among other things the creation and extension of systems of unemployment insurance and the admission of foreigners to the benefits of these systems on condition of reciprocity.

In the framing of the questionnaire on unemployment insurance to be submitted to governments there were numerous clashes of opinion between delegates representing labor and those representing employers. Particular objection was raised by the workers to the inclusion of reference to a "means test" as a factor in benefit conditions. The workers felt this subject had no place in a questionnaire that was concerned not with an assistance but with an insurance scheme, i.e., a plan in which the workers were themselves contributors. The workers' amendment was, however, defeated.

The questionnaire that will be circulated this year to the governments is very elaborate and in the scope of its questions no doubt profits considerably by the large amount of experience that has already been had with unemployment insurance. It is of interest to note that the various American proposals that attempt to use an unemployment compensation scheme as a means to reduce unemployment by the device of varying the employer's contribution with his experience record in maintaining employment find no place in this questionnaire. If the United States had been a formal participating member in the International Labor Conference this important point presumably would have received consideration.

Oversea Conference

During the last week of the International Labor Conference a special group conference was held dealing with the particular problems of non-European "oversea" countries. Many of these countries had felt that their problems needed special consideration, since the standards for most draft conventions had been based on European experience.

Emphasis was placed on geographical groupings and the possibility of developing international labor standards that would take into consideration regional problems.

Thus it was suggested that an Asiatic and a Latin-American section of the International Labor Office be set up to study the problems of the countries in these areas.

Many delegates, including Europeans, pointed out the desirability of devoting more attention to the problems of oversea countries in the light of the hoped-for possibility of the affiliation of the United States with the International Labor Office.

Importance of United States Participation

Regarding the value of participation as official observers, the words of Mr. Butler, Director of the International Labor Office. are quoted here:

> Perhaps I need hardly say that it is a very special pleasure to me to see an American delegation here for the first time this year. We value this cooperation all the more on account of the great industrial reconstruction which is now being undertaken in the United States. Anyone who is interested in the problems of this organization is bound to follow this effort with the closest attention. I need hardly add that we, too, hope that the collaboration so successfully instituted may expand and grow.

The United States delegates feel that it was very important to be at this meeting as official observers and to participate in the discussions of the Conference. The delegation would unhesitatingly recommend that the United States affiliate with the International Labor Office so as to be in a position to be in full collaboration with the other 58 countries that comprise this organization.

The International Labor Conference is of the nature of an international industrial parliament in which the delegates of 58 nations participate, including workers', employers', and government delegates. The work of the International Labor Office, the organization which, so to speak, looks after and prepares the work of the Conference, is not unlike that of the United States Department of Labor or any other labor ministry or department, except that it is staffed by international officials drawn from over 40 different nationalities instead of by national officials.

The economic and social questions that come before the Conference are interwoven with similar questions in the United States. Social insurance, that has had its place on the statute books in the countries in Europe, South America, and the East, we in the United States are just beginning to consider. We want to know their experience and profit by it, and no better opportunity is afforded along that line than participation in conferences of the International Labor Office. In view of the competition among countries—due to inequalities in wages and hours worked—the attention that will be given by future confer-

ences to such economic questions as the shorter working day and the raising of wages and purchasing power will be of particular interest to the United States, and in our opinion the United States cannot afford to be in a position of less than full equality in such collaboration.

That adequate representation is assured for both employers and employees is clear in the Conference machinery, each country being represented by two government delegates, one employer (nominated by the largest employers' association), and one worker (nominated by the national trade-union organization). Adherence to draft conventions is, of course, purely voluntary on the part of any country. Furthermore, affiliation with the International Labor Office does not necessarily mean membership in the League of Nations. Several countries are now affiliated with the Labor Office that have no relation with the League of Nations.

There is no doubt that this international organization has been a very great factor in raising the standards of employment the world over. To quote again the Director's report: In speaking of the treaties ratified by the countries, he said that since the organization of the International Labor Office there had been 566 ratifications of treaties by the countries affiliated. He pointed out the remarkable progress that had been made in the matter of ratifications in Latin America; Spain was the greatest wonder of all, since 14 more ratifications had come in, bringing them to 30 and making almost 100 percent ratification.

We think that it is not too much to say that improved working standards and social legislation could not have had such impetus without the collaboration of the countries in the conferences assembled.

We feel, too, that in another year the United States will have much to contribute to such a conference. It is important to dispel the thought of at least some members of the Conference who say that nothing can be done because the United States, the largest industrial country in the world, does not do its share in collaboration, and that the legal industrial standards in the United States are far below those of other countries. We strongly recommend, therefore, that the United States Government affiliate with the International Labor Organization at the earliest possible opportunity, and that in the meantime the Government send a delegation to the next conference in May 1934, having in mind representation upon such delegation of two Government members, an employer spokesman,and a representative of the organized workers.

EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

Longshore Labor Conditions and Port Decasualization in the United States

THE following is the text of the report presented in November 1933 at the hearings on the shipping code on behalf of the United States Department of Labor. The report was prepared by Boris Stern of the United States Bureau of Labor Statistics.

A careful analysis of the latest information on longshore labor conditions secured for the administrator of the shipping code by the United States Department of Commerce and the Planning and Research Division of the National Recovery Administration, has convinced the Department of Labor that the present longshore labor conditions differ from those described in the bulletin on Cargo Handling and Longshore Labor Conditions, published by the United States Bureau of Labor Statistics (Bul. No. 550), and presenting conditions as they existed between 1926 and 1929, in only two aspects:

(1) Conditions of employment in the industry are now more chaotic than ever.

(2) The earnings of longshoremen, even of the most favorably situated groups of workers, are much, much lower than during the 1927–29 period covered by the Bureau survey.

With these differences constantly in view, the attempt is made in the following pages to give a brief outline of the longshore labor and employment conditions normally prevailing in the majority of the United States ports, and to follow it up with a program of action intended to mitigate, if not altogether to cure, some of the most flagrant injustices to labor on the waterfront.

Supply of Longshore Labor

IT IS generally admitted by all interests in the shipping industry (port authorities, representatives of shipping and stevedore companies, representatives of labor) that even in the most prosperous years there exists in every port a supply of longshore labor far in excess of what is considered necessary to take care of the highest load peak in the port.

In normal times, only a small part of this supply is earning what may be considered a decent wage. Probably a larger proportion is earning a subsistence wage, i.e., just about enough to make ends meet on a comparatively low standard of living. The balance is always on the brink of starvation and depends largely on outside support, chiefly charity. At the present time a very conservative estimate would probably place more than 50 percent of all the longshoremen on the relief rolls.

Demand for Longshore Labor

A LONGSHOREMAN can get work only for the period a ship remains in port for the purpose of discharging or loading cargo. More ships in port mean more jobs for longshoremen; a storm delaying sea traffic means no work during the delay, followed by a period of feverish activity to catch up with the work to enable the ship to sail on time. Ships may arrive and leave port every day, some after a stay of only a day or two, others after a week or 10 days. Sometimes they straggle in one by one and sometimes they come in numbers.

In addition to this irregularity in the arrival and departure of ships, the shipping industry as a whole is seriously affected by cyclical trends, by seasonal fluctuations, by changes in tariff regulations, by the weather, and by the vagaries of the individual shipping companies. As a result it is wellnigh impossible to plan or gage the demand for longshore labor in the port for any considerable period of time.

Method of Hiring Longshore Labor

THE contracting stevedores doing the work of discharging and loading ships are seldom in a position to know in advance how long the actual work of loading or discharging will last and how many men they will need for this work. Hence there has developed a system of hiring longshoremen by the hour and hiring them only when and where actually needed. Every pier in port, every dock, becomes a hiring station, and the average longshoreman never knows whether or not he will be employed at a given pier or when hired how long he will remain on the job.

Hours of Work

THE proposed shipping code provides that "longshoremen and other dock workers shall not be employed for more than 48 hours in any week averaged over a period of 4 weeks." In reality the longshore industry has no conception of "regular hours" of work, as commonly understood in other enterprises. Ships arrive and leave the port at any hour of the day and night, and the work of loading and discharging cargo also begins and ends at any hour of the day or night. Certain union restrictions, such as limiting the hours and the number of "shapes" in the port, penalty rates for night and Sunday work, extra pay for waiting time, etc., have tended somewhat to improve these conditions. However, neither these rules nor the 8-hour day and the 44-hour week provisions contained in the collective agreements between the employers and the unions, have succeeded in regularizing or in any way standardizing the hours of longshore work. Because of the difficulty of getting a job and the uncertainty of its duration, the individual longshoreman prefers to remain at work as long as his endurance will last or the foreman will permit him to remain. Stretches of 20 to 30 hours of uninterrupted work, except for short meal stoppages, are not uncommon in the ports of New York, Philadelphia, and Baltimore. Even longer stretches of work may be found in New Orleans, Galveston, and Houston in the peak of the cotton season.

Earnings of Longshoremen

DAYS or weeks of enforced idleness followed by periods of equally enforced hard labor are reflected in the weekly earnings of the longshoremen. Even those among them who are most favored by the foreman and who can be regarded as permanent employees in the sense that they work at one pier only and are given preference when work is available, show extreme variations in their earnings from week to week, and some weeks even they may have no earnings at all. As to the others, who constitute by far the larger body of men—those working a day at one pier, half a day at another, half a night at still a third pier, and perhaps another day or night at the first or second pier—their earnings are so irregular that it is altogether impossible to measure them with any degree of approximation.

This accounts for the fact that the Department of Commerce and the Research and Planning Division of the National Recovery Administration found it impossible to get any information on the average earnings of longshoremen in the majority of our ports. It is especially true in New York, where the several attempts made by various Government agencies to measure the average earnings of longshoremen, including the latest survey of the Bureau of Labor Statistics, resulted in complete failure.

Summary of Labor Conditions

THESE conditions may be considered as representing the normal situation prevailing in all the ports where no attempt has been made by employers or by the unions to manipulate and control the supply of longshore labor to suit the current needs of the ports. Briefly the characteristics of such a port may be described as follows:

(1) A large immobile body of workers scattered over the entire waterfront and ignorant of the actual time and place where work is available.

(2) A considerable number of individual employers each aiming to create a large reservoir of labor in order to be able to satisfy their maximum demands during peak loads.

(3) Complete dependence of the job of longshoreman on chance and on the good will of the "employing foreman."

(4) Conditions of hiring longshoremen which because of the autocratic power concentrated in the hands of the hiring foreman pave the way for unfair practices and exploitation.

(5) Periods of enforced idleness alternating with long stretches of hard labor, resulting in extreme variations in the earnings of longshoremen.

Decasualization of Longshore Labor

THE object of a port decasualization scheme is to do away with some of the more glaring evils outlined above. It is quite obvious that very little can be done as regards the demand for longshore labor. Small changes could be effected, as for instance, the concentrated sailings on certain days of the week or month could be spread out more evenly over the week and month. But even the most scientific organization of a port will not altogether eliminate the daily and seasonal fluctuations in shipping. Whatever is done, ships will continue

to arrive in greater numbers at one time than another and there always will be busy periods and slack periods.

Recognizing this fact, most of the ports with plans of decasualization concentrated on the manipulation of the labor supply in the attempt to bring about an adjustment of the supply to suit the changing demands in the shipping industry.

The practical application of a scheme of decasualization, the methods or organization, composition of the decasualizing agency, the systems of distributing and dispatching longshoremen from the central hiring station or stations to the various piers, vary greatly in accordance with the customs and conditions prevailing in the individual ports. London, which decasualized as early as 1891, has one scheme; Liverpool, another; and Antwerp, which decasualized in 1929, still another. In this country the system used in Seattle, the first port to decasualize its general longshore supply of labor, has a method different from the one used in Portland, which in turn is different from the Los Angeles scheme of decasualization.

There are, however, certain general requirements, without which decasualization is either altogether impossible or, if attempted, is doomed to fall short of its main objectives. These conditions are:

(1) There must be complete registration of all longshore labor available in the port.

(2) Only those on the register should be permitted to work on the waterfront.

(3) All employers must give up their right to hire longshore labor individually at their piers or elsewhere and must agree to secure their labor through the decasualizing agency only.

With these minimum requirements fulfilled, a scheme of decasualization should accomplish the following results:

(1) It should guarantee to all employers an equal chance to obtain labor when and where needed.

(2) It should guarantee to all longshoremen an equal chance of getting a job when work is available.

(3) It should gradually reduce the number of longshoremen in port to that approximating the actual needs of the port and thus raise and make more regular the average earnings of the men on the register.

Results of Decasualization in Some American Ports

UNQUESTIONABLY the employment conditions and the earnings of longshoremen in the decasualized ports of Seattle, Portland, and Los Angeles are more favorable than in the other ports without decasualization schemes. Even in the ports of Boston and Galveston, where the local unions exercise a stricter control over the labor supply and attempt to rotate the work for a more equitable distribution among the membership, crude as these attempts may be at times, the results are more satisfactory than in the other ports where no attempt is made to coordinate the supply of labor to suit the demands of the port.

The principal difficulty with the existing schemes in Seattle, Portland, and Los Angeles is not in the scheme per se. It is due primarily to the fact that the plan was promulgated and carried out by the employers against the strong opposition of organized labor. In fact the schemes may be considered as the result of the protracted

fight between the employers' associations on the west coast and the International Longshoremen's Association which culminated in the almost complete elimination of the union from the west coast. This is the primary reason why the International Longshoremen's Association, the dominant labor organization in the longshore field, has been so violently opposed to any suggestion of decasualization in the other ports.

Present Situation

WITH the passage of the National Industrial Recovery Act, and especially with article 7 specifically guaranteeing the workers the right to collective bargaining through representatives of their own choosing, the opposition of the International Longshoremen's Association to a scheme of decasualization intended to bring some order in the prevailing chaotic conditions in the longshore industry can no longer be maintained on the grounds outlined above.

On the whole the present situation may be regarded as extremely favorable for decasualizing the longshore labor in all the ports of the United States under the administration of the shipping code. The Department of Labor is therefore presenting herewith a more or less detailed analysis of a plan of procedure and operation which in its general outline should be incorporated either in the shipping code or preferably in a separate code devised to cover longshore operations only.

A Plan to Decasualize Longshore Labor

Need for an Impartial Agency

DECASUALIZATION is primarily a problem in the technique of employment and work distribution, vitally affecting the interests of employers and workers alike. It is essential, therefore, that the actual work of decasualizing the port and of maintaining a central employment station for longshore labor be carried out by an authoritative and impartial agency, with unquestioned trust and support from all the interests involved. It is proposed that the National Recovery Administration cooperate with the United States Department of Labor in organizing such an impartial agency for the specific purpose of decasualizing longshore labor in the United States.

National Decasualization Board

The National Recovery Administration shall appoint a National Decasualization Board, consisting of the administrator of the shipping code, the Director of the Employment Service of the Department of Labor, and an advisory board of three employers selected by the code authority and three workers approved by the president of the International Longshoremen's Association. This National Decasualization Board shall be the responsible and final authority for the decasualization work in all the ports.

Port Decasualization Boards

At the request of the National Decasualization Board the Secretary of Labor and the Secretary of Commerce jointly shall appoint one or if necessary (as in the case of New York) several longshore employ-

ment directors for each port, who shall be charged with the actual work of first reorganizing the port with a view to decasualization and then carrying on the work of a central employment office for the port.

The employment director shall be given full authority to proceed with his work of decasualizing the port and shall be responsible to the National Decasualization Board only. He shall be assisted, however, by an advisory board of two employers selected by the local code authority and two workers elected by the local union. The five members shall constitute the port decasualization board.

General Outline of Procedure

The port employment director shall at once proceed to make a study of the prevailing longshore labor conditions in the port, and on the basis of this survey the port decasualization board shall submit a complete outline of action for the approval of the National Decasualization Board.

Immediately upon the approval of the plan the employment director shall proceed with the registration of all the workers in the port. Official notices to that effect shall be displayed on all piers and docks and in other conspicuous places where longshoremen are known to congregate.

In ports with a large number of foreign workers the notices shall be printed in the several representative foreign languages. The notices shall clearly designate the places where the longshoremen are required to register and state the period during which the registration is to be carried on.

At the time of registry each longshoreman shall be given a permanent port work number. This port work number shall be the only work number used to designate the particular worker by all employers of longshore labor in the port.

Organization of the Labor Supply

Simultaneously with the registration of the workers all employers of longshore labor shall be required to present a written statement to the port decasualization board, specifying the number of gangs they desire to have permanently allotted to them, and giving the exact number of workers to be included in these gangs. The employers shall be entitled to have as many permanent gangs as they deem necessary, so long as the workers allotted to them are given employment averaging over a 4-week period not less than two thirds of the maximum weekly hours set in the code. (Overtime and Sunday hours of work shall be counted as equal to the straight hours times the rate paid for the overtime and Sunday work.) The employers shall also have the right to appoint their own foremen and otherwise control the work of their men, provided they comply with the regulations of the code and of the collective agreement with the union.

In addition all employers of longshore labor and the local union of longshoremen shall be requested to submit to the port decasualization board a list of foremen who shall be permitted to organize permanent gangs to be registered with the board for rotation work. The number of men included in the gangs shall be determined in accordance with the prevailing custom of the port.

Finally, all other workers not included either in the permanent company gangs or in the gangs organized under the supervision of the

board, shall be listed as individual workers and be used only when there is need for such additional labor in the port.

Upon completion of the registration and gang organization, the port decasualization board shall set a definite date for the plan of decasualization to become operative.

On and after that date no employer shall be permitted to hire longshore labor except through the employment office or offices especially provided for that purpose by the decasualization board.

Mode of Payment

All workers in permanent gangs allotted to individual employers shall be paid at the office of the employer. Copies of such pay rolls shall be forwarded to the central office of the decasualization board. Each worker shall be issued a work book containing his name and the nature of his work, his address, and his port work number. Spaces shall be provided in the book for weekly entries of the total hours and the total earnings of the workers. These work books shall be turned in to the employer at the beginning of each week and shall be handed back to the individual worker together with his pay envelop.

All other workers shall be paid in the office of the decasualization board. The several pay rolls of the individual employers shall be combined by the office force of the decasualization board into one master pay roll containing the total hours of work and the earnings of the individual workers irrespective of whether they worked for one or several employers during the week. These workers shall also be provided with individual work books, but of a different color from those of the workers permanently allotted to companies, and their hours and earnings shall also be entered in the books.

Expenses

All expenses of the port decasualization board except the salary of the employment director shall be defrayed by an assessment divided between the employers and the workers. It is believed that 1 percent of the pay roll contributed by the employer, and one half of 1 percent deducted from the earnings of the individual workers, will prove sufficient to cover the current expenditures involved in maintaining and operating the employment offices.

The initial expenses of decasualization may be contributed either in the form of an assessment on the employers and the union, or by means of a special grant or loan from the Federal Government, later to be repaid from the pay-roll assessments.

The employment director shall at all times remain an employee of the National Recovery Administration and shall receive his remuneration from that organization.

Special Conditions Affecting Individual Ports

New York.—The difference between the port of New York and any other port in the country is primarily a difference in size. The port of New York covers a tremendous coast line in the two States of New York and New Jersey. For the purpose of effective decasualization of that port it may therefore be necessary to have a central decasualization board and several smaller decasualization units, each

proceeding with the work of decasualization in the territory allotted to it but under the close supervision and control of the central board.

Seattle, Portland, and Los Angeles.—In such ports as Seattle, Portland, and Los Angeles, where decasualization schemes are now carried on by the employers, and in such ports as Tacoma and Galveston, where the work is at least partly carried on by the unions, the respective port decasualization boards shall proceed to take over the machinery and the personnel of the employment offices and reorganize them along the lines of procedure outlined for the other ports. New registrations of longshoremen and a new alinement of gangs shall be made compulsory in order to include the workers who hitherto for one reason or another have been excluded, or who voluntarily abstained from participation in the decasualization scheme.

Conclusions

THE outline presented here is not exhaustive and makes no reference to the various problems which may arise in connection with the decasualization activities in the separate ports. Such matters, for instance, as the relationship between white and negro labor in the southern ports, the jurisdictional struggle between the two unions in San Francisco, the problem of the groups of longshoremen specializing in individual commodities, etc., are not discussed here because they properly belong within the realm of the individual ports rather than in a general analysis for all ports.

Nor is there an attempt in the present very brief discussion to minimize the numerous difficulties which will confront the individual port decasualization boards. It is believed, however, that under the leadership of an effective national decasualization board and with the voluntary cooperation on the part of the employers and the unions, the work of decasualization does not constitute an impossible task to accomplish. It is the only way to bring a degree of order into the chaotic longshore industry.

Fluctuation of Employment in Ohio in 1931 and 1932 and Comparison with Previous Years

By Fred C. Croxton, Columbus, Ohio, and Frederick E. Croxton, Columbia University

THIS analysis shows fluctuation of employment of wage earners, clerical employees, and salespeople (not traveling) from returns made by 43,168 establishments in Ohio in 1931 and 40,134 establishments in 1932. Summary tables present comparisons with the previous 7 years and charts show a comparison with the previous 17 years.[1]

In 1931, the month of highest employment was May when the 43,168 establishments reported a total of 1,034,483 wage earners, bookkeepers, stenographers, and office clerks, and salespeople (not traveling). The month of lowest employment in that year was December, when 922,706, or 10.8 percent fewer, were reported employed in those general-occupation groups.

In 1932, the month of highest employment was February, when 40,134 establishments reported a total of 871,254 employees in the occupation groups enumerated above. The month of lowest employment in 1932 was August, when the number reported was 798,226, or 8.4 percent less than in February.

The general-industry groups covered in these 2 years as well as in the preceding years are manufactures, service, wholesale and retail trade, transportation and public utilities, construction, mining and quarrying, agriculture, and fisheries.

The figures within each year give an accurate picture of the changes in total numbers from month to month on the pay rolls of the establishments reporting. They do not supply any information, however, as to whether the employees are employed full time or only part time.

From year to year the number of establishments varies, although every effort is made to secure reports from all establishments having three or more employees and falling in the industrial groups previously mentioned. A fairly good approximation of the effect of the depression, as far as it concerns total employees on the pay roll, is secured by comparing the maximum, minimum, and average number of employees for recent years of the 9-year period covered in this report. The average number of employees (computed by dividing the total of monthly reports by 12) in 1932 as compared with 1929 shows a decrease of 395,172, or 39.3 percent, for males; 75,239, or 24.9 percent, for females; and 470,411, or 36.0 percent, for both sexes combined. The maximum number of both sexes employed in 1932 as compared with 1929 shows a decrease of 484,750, or 35.7 percent, and the minimum number of both sexes a decrease of 432,498, or 35.1 percent.

[1] Similar data for Ohio for the period beginning January 1914 are given in U.S. Bureau of Labor Statistics Bul. No. 553: Fluctuation of Employment in Ohio, 1914 to 1929.

The total wage and salary payments (including those to superintendents and managers) show a decrease in 1930 as compared with 1929 of $320,017,175, or 15.5 percent; a further decrease in 1931 as compared with 1930 of $403,016,839, or 23.2 percent; and a still further decrease in 1932 as compared with 1931 of $375,996,347, or 28.1 percent. The decrease from 1929 to 1932 was $1,099,030,361, or 53.3 percent. In these comparisons it should be borne in mind that the number of establishments varied from year to year but that, as previously stated, every effort was made each year to get reports from all establishments employing three or more persons in manufactures, service, wholesale and retail trade, transportation and public utilities, construction, mining and quarrying, agriculture, and fisheries—in fact, for all lines of industrial and commercial activity except interstate transportation and government employment.

Total wage and salary payments in 1932 as compared with 1929 show a decrease of 59.4 percent for employees classified as wage earners; of 33.8 percent for the group classified as bookkeepers, stenographers, and office clerks; of 45.1 percent for salespeople (not traveling); and of 33.5 percent for superintendents and managers.

Sources and Scope of Study

THE present report has been compiled from two series of reports collected and tabulated separately by the Division of Labor Statistics of the Department of Industrial Relations of Ohio. One of these series covers statistics of mines and quarries while the other covers all other industries in the State except interstate transportation and government employment.

The statistical data for these reports were furnished annually by employers of the State as required by law. The reports as compiled by the Ohio Division of Labor Statistics show the data, by industries, for the State as a whole and also for each of the more populous counties.

It is believed that this detailed information affords the most comprehensive data available in this country relating to changing employment, or so-called fluctuation of employment, for a long series of years and for the whole geographical area of a State. It is also one of the few extensive sources which includes data for clerical help and sales people. In each of the years the establishments are identical throughout the year and the facilities for securing reports from all establishments, as explained in previous reports,[2] are unusually favorable. The number of establishments increased (largely through addition of those employing comparatively few persons) until 1930. The number of establishments decreased in 1931 and again in 1932. The decrease was largely in the construction group where the number was 3,216 (or one third) less in 1932 than in 1930. Manufactures show a decrease in establishments reporting of 9.1 percent in 1932 compared with 1930.

The industries covered and the number of establishments reporting are shown in table 1. The total number for each of the years 1924 to 1930 is slightly less than shown in previous reports. This reduction in number varies from 14 to 25 and is due to omission at this time of the group "Industries, not otherwise classified", and to correction of a slight typographical error in 1930.

[2] Monthly Labor Review, issues of April 1930 (pp. 31–62); and March 1932, (pp. 516–528). See also U.S. Bureau of Labor Statistics Bul. No. 553: Fluctuation in Employment in Ohio, 1914 to 1929.

TABLE 1.—NUMBER OF OHIO ESTABLISHMENTS REPORTING FLUCTUATION OF EMPLOYMENT, 1924 TO 1932

Industry group	1924	1925	1926	1927	1928	1929	1930	1931	1932
Agriculture	732	910	1,052	1,199	1,329	1,444	1,639	1,777	1,736
Construction	7,364	8,407	9,145	9,724	9,942	10,183	9,672	8,272	6,456
Fisheries	25	23	22	21	20	21	22	24	[1]
Manufactures	9,125	9,502	9,704	9,880	9,937	10,035	10,011	9,683	9,102
Mining and quarrying:									
Coal mining	1,000	889	879	858	714	679	672	808	784
Fire-clay mining	108	108	110	105	112	108	107	98	82
Gypsum mining	3	3	3	3	3	3	3	[2]	[2]
Limestone quarrying	116	119	119	114	122	121	123	135	137
Sandstone quarrying	49	43	44	46	42	33	30	32	22
Service	4,233	[3] 5,971	6,761	7,598	8,210	9,335	10,241	10,452	10,357
Trade, wholesale and retail	7,689	[3] 7,277	7,867	8,526	8,916	9,524	10,022	10,111	9,716
Transportation and public utilities	1,271	1,353	1,453	1,561	1,625	1,674	1,741	1,776	1,742
Total	31,715	34,605	37,159	39,635	40,972	43,160	44,283	43,168	40,134

[1] Combined by Division of Labor Statistics with "Trade, wholesale and retail" as establishments reporting were largely packing and sales plants.
[2] Only 2 mines reported in operation and therefore data could not be used in tabulation without identifying establishments.
[3] A considerable part of the increase in number of establishments in service and of the decrease in trade, as compared with the previous year, is due to change of classification of "offices" from trade to service. This change, of course, also affects the number of employees in each of the 2 industrial groups.

The returns received do not give a complete picture for the industry group "agriculture" and for the subgroup "domestic service" which is one of the many classifications under the industry group "service", as comparatively few farms or domestic establishments in Ohio employ as many as three persons and reports are not sought, although a few are received, from concerns employing fewer than three workers. The lists of the Division of Labor Statistics are carefully and continuously checked with those of the Ohio Industrial Commission which administers the workmen's compensation law. Employers of fewer than three persons may carry insurance under that act but are not compelled to do so. Household or domestic service does not come within the requirements of the workmen's compensation law, but employers of such service, regardless of the number of persons employed, may avail themselves of the provisions of that law. The Monthly Labor Review for April 1930 (p. 33) contained a discussion relative to the approximate completeness of the materials collected for the Ohio statistical reports.

TABLE 2.—NUMBER OF EMPLOYEES COVERED BY REPORTS TO DIVISION OF LABOR STATISTICS, DEPARTMENT OF INDUSTRIAL RELATIONS OF OHIO, 1924 TO 1932

Year	Number of establishments reporting	Males			Females			Both sexes		
		Maximum month	Minimum month	Average of 12 monthly reports	Maximum month	Minimum month	Average of 12 monthly reports	Maximum month	Minimum month	Average of 12 monthly reports
1924	31,715	891,731	833,115	857,062	248,713	230,147	238,426	1,134,424	1,063,262	1,095,488
1925	34,605	945,843	847,398	907,167	266,861	239,065	250,612	1,206,246	1,086,463	1,157,779
1926	37,159	990,383	898,011	946,740	279,275	253,728	264,106	1,259,325	1,151,739	1,210,846
1927	39,635	953,784	869,457	921,753	284,664	260,958	272,395	1,225,049	1,152,874	1,194,148
1928	40,972	993,705	843,462	939,817	301,222	261,946	278,974	1,282,584	1,105,408	1,218,791
1929	43,160	1,054,154	921,442	1,004,283	313,416	287,221	302,339	1,356,004	1,230,724	1,306,622
1930	44,283	938,811	789,377	882,072	288,478	271,218	279,788	1,225,478	1,066,310	1,161,860
1931	43,168	773,732	669,492	736,050	260,751	247,651	255,046	1,034,483	922,706	991,096
1932	40,134	639,773	583,853	609,111	233,628	214,373	227,100	871,254	798,226	836,211

For each of the 9 years, 1924 to 1932, table 2 shows the maximum, minimum, and average number of employees included. The peak year was 1929. In 1931 the average number (both sexes) was 104,392, or 9.5 percent, below 1924 which was the lowest previous year in the 9-year period covered and 315,526, or 24.1 percent, below 1929. In 1932, the average number was 259,277, or 23.7 percent, below 1924 and 470,411, or 36.0 percent, below 1929.

Table 3 shows the average number of employees (computed by dividing the total of the monthly reports by 12) reported under each of the general industry groups.

Among the industry groups numerically important, the construction industry shows the greatest reduction in average number of employees of both sexes combined when 1932 is compared with 1929. The percentage decrease was 65.0 in construction, 42.8 in manufactures, 33.6 in mining and quarrying, 26.8 in transportation and public utilities, 17.7 in wholesale and retail trade, and 9.6 in service.

TABLE 3.—AVERAGE NUMBER OF EMPLOYEES COVERED BY REPORTS TO THE DIVISION OF LABOR STATISTICS, DEPARTMENT OF INDUSTRIAL RELATIONS OF OHIO, 1924 TO 1932, BY GENERAL INDUSTRY GROUPS

Year	All industries [1]	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities
1924	1,095,488	5,772	74,791	325	679,523	39,767	85,837	140,329	69,096
1925	1,157,779	6,436	77,670	304	727,988	35,939	[2] 113,046	[2] 126,928	69,426
1926	1,210,846	7,144	79,928	296	751,340	34,896	124,424	132,770	80,008
1927	1,194,148	7,754	83,535	283	729,250	22,880	130,525	139,720	80,162
1928	1,218,791	8,545	78,434	268	749,434	20,906	138,542	140,780	81,849
1929	1,306,622	8,940	78,631	344	806,607	27,630	153,109	149,224	82,137
1930	1,161,860	8,989	69,607	295	673,178	28,014	155,012	142,286	84,450
1931	991,096	9,159	45,601	289	552,905	27,305	150,122	137,304	68,382
1932	836,211	7,915	27,519	[3]	461,183	18,349	138,405	122,738	60,103

[1] Includes a small number of persons in some of the years in "Industries not otherwise classified." This number does not exceed 50.

[2] A considerable part of the increase in service and of the decrease in trade, as compared with the previous year, is due to change of classification of "offices" from trade to service.

[3] Combined by Division of Labor Statistics with "Trade, wholesale and retail", as establishments reporting were largely packing and sales plants.

The amount reported paid in wages and salaries in each of the 9 years, 1924 to 1932, is shown in table 4. The total number of establishments reporting wage and salary payments varies slightly from the number reporting fluctuation of employment in some of the years. Payments to superintendents and managers are shown in table 4, but information concerning that occupational group is not included in any of the other tables of this article, as information other than wage and salary payments is not requested of employers for that occupation group.

Total wage and salary payments to each of the four occupation groups showed an increase each year from 1924 to 1929 with the exception of a recession for wage earners in 1927. Since 1929 there has been a very large decrease each year except that the occupation group, bookkeepers, stenographers, and office clerks, and also the group superintendents and managers show an increase in 1930.

TABLE 4.—WAGE AND SALARY PAYMENTS IN OHIO ESTABLISHMENTS, 1924 TO 1932, BY GENERAL OCCUPATION GROUPS

Year	Number of establishments reporting	Wage and salary payments to—				
		Wage earners	Bookkeepers, stenographers, and office clerks	Sales people (not traveling)	Superintendents and managers	Total
1924	31,713	$1,266,375,497	$207,940,566	$81,728,091	$104,897,988	$1,660,942,142
1925	34,591	1,366,094,644	215,613,253	89,783,496	114,693,080	1,786,184,473
1926	37,153	1,412,092,096	231,542,653	97,523,735	119,374,811	1,860,533,295
1927	39,631	1,387,591,161	245,235,159	103,849,983	121,831,528	1,858,507,831
1928	40,977	1,425,818,971	252,744,576	109,017,515	132,528,306	1,920,109,368
1929	43,164	1,523,848,976	282,709,980	119,084,364	134,705,187	2,060,348,507
1930	44,285	1,220,699,988	292,321,872	88,972,655	138,336,817	1,740,331,332
1931	43,167	898,865,953	240,126,548	82,265,334	116,056,658	1,337,314,493
1932	40,134	619,118,283	187,181,237	65,421,317	89,597,309	961,318,146

Fluctuation of Employment, by Industry Groups

TABLE 5 shows for each industry group the number of persons reported employed on the 15th of each month of 1931 and 1932. It does not provide information as to the number on full time and number on part time, as such information was not requested of employers. As before stated, the figures for agriculture do not give a complete picture of that industry.

TABLE 5.—NUMBER EMPLOYED IN OHIO ESTABLISHMENTS ON 15TH OF EACH MONTH IN 1931 AND 1932, BY SEX AND INDUSTRY GROUPS

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Males										
1931										
January	739,506	6,306	35,895	178	453,087	27,849	82,209	82,120	51,848	14
February	743,174	6,273	35,549	202	457,435	28,104	83,024	81,677	50,895	15
March	753,093	6,753	37,706	255	464,503	27,756	83,700	82,157	50,246	17
April	771,072	8,299	45,458	361	468,822	26,732	86,640	83,250	51,492	18
May	773,732	8,570	50,199	355	466,156	26,073	87,365	83,319	51,677	18
June	765,841	9,388	52,452	324	455,495	25,295	87,813	83,219	51,836	19
July	751,102	10,335	52,970	261	441,873	25,330	86,914	82,224	51,178	17
August	735,099	9,320	51,742	270	427,807	26,300	86,278	82,229	51,137	16
September	729,504	9,221	49,596	324	422,172	28,142	86,230	82,718	51,085	16
October	710,858	9,620	45,843	329	409,892	28,816	84,187	82,030	50,124	17
November	690,129	7,721	37,604	335	404,541	28,288	81,821	81,193	48,609	17
December	669,492	6,689	29,290	270	394,770	27,625	80,873	82,436	47,522	17
1932										
January	639,773	5,570	20,887	(1)	387,578	26,109	78,385	74,886	46,358	------
February	638,967	5,635	21,246	(1)	391,330	22,143	78,240	74,485	45,888	------
March	629,443	5,734	20,915	(1)	384,236	19,984	78,174	75,123	45,277	------
April	619,591	7,266	25,055	(1)	373,107	13,633	79,931	75,039	45,560	------
May	609,919	7,473	27,896	(1)	365,160	9,047	80,572	74,785	44,986	------
June	608,528	8,060	29,575	(1)	361,509	9,785	80,015	74,640	44,944	------
July	597,372	8,842	29,698	(1)	350,302	12,845	77,747	73,155	44,783	------
August	583,853	7,971	30,560	(1)	335,631	15,227	77,619	72,588	44,257	------
September	598,592	8,364	31,341	(1)	343,795	18,841	78,647	73,413	44,191	------
October	604,115	8,892	30,596	(1)	346,021	22,776	77,370	74,278	44,382	------
November	594,184	6,665	26,324	(1)	344,193	23,883	75,840	73,909	43,370	------
December	585,000	5,466	19,597	(1)	342,364	24,698	74,706	75,148	43,021	------

[1] Combined with "Trade, wholesale and retail," in 1932.

TABLE 5.—NUMBER EMPLOYED IN OHIO ESTABLISHMENTS ON 15TH OF EACH MONTH IN 1931 AND 1932, BY SEX AND INDUSTRY GROUPS—Continued

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Females										
1931										
January	250,484	793	1,975	------	111,642	119	64,964	52,502	18,477	12
February	253,659	801	1,977	------	115,090	117	65,438	51,863	18,360	13
March	258,001	872	1,964	------	117,188	117	65,759	53,801	18,286	14
April	260,568	1,019	1,971	------	117,017	116	66,476	55,931	18,023	15
May	260,751	1,049	1,980	------	117,387	112	66,880	55,301	18,026	16
June	259,836	1,109	1,950	------	116,501	108	67,420	54,803	17,931	14
July	253,009	1,146	1,915	------	113,357	103	66,075	52,628	17,770	15
August	251,737	982	1,915	------	113,938	104	65,075	52,014	17,694	15
September	258,781	1,029	1,873	------	118,159	113	65,387	54,711	17,494	15
October	252,864	1,033	1,828	------	113,026	114	64,435	55,055	17,358	15
November	247,651	826	1,784	------	109,128	114	63,460	55,442	16,882	15
December	253,214	749	1,770	------	105,877	114	63,035	65,022	16,632	15
1932										
January	230,454	603	1,428	(1)	102,130	114	62,195	47,584	16,400	------
February	232,287	664	1,413	(1)	105,149	112	61,889	46,826	16,234	------
March	233,628	661	1,414	(1)	104,992	110	62,065	48,262	16,124	------
April	231,188	841	1,423	(1)	101,914	101	62,018	48,889	16,002	------
May	230,376	946	1,420	(1)	100,713	93	61,739	49,538	15,927	------
June	225,883	929	1,409	(1)	98,836	92	61,023	47,939	15,655	------
July	216,803	943	1,359	(1)	94,388	93	59,068	45,591	15,361	------
August	214,373	774	1,355	(1)	94,558	94	58,263	44,341	14,988	------
September	224,725	847	1,352	(1)	101,929	100	59,112	46,763	14,622	------
October	228,808	767	1,353	(1)	103,575	103	59,051	49,552	14,407	------
November	226,707	633	1,317	(1)	102,400	104	58,701	49,258	14,294	------
December	229,969	630	1,294	(1)	98,381	106	58,486	56,862	14,210	------
Both sexes										
1931										
January	989,990	7,099	37,870	178	564,729	27,968	147,173	134,622	70,325	26
February	996,833	7,074	37,526	202	572,525	28,221	148,462	133,540	69,255	28
March	1,011,094	7,625	39,670	255	581,691	27,873	149,459	135,958	68,532	31
April	1,031,640	9,318	47,429	361	585,839	26,848	153,116	139,181	69,515	33
May	1,034,483	9,619	52,179	355	583,543	26,185	154,245	138,620	69,703	34
June	1,025,677	10,497	54,402	324	571,996	25,403	155,233	138,022	69,767	33
July	1,004,111	11,481	54,885	261	555,230	25,433	152,989	134,852	68,948	32
August	986,836	10,302	53,657	270	541,745	26,404	151,353	134,243	68,831	31
September	988,285	10,250	51,469	324	540,331	28,255	151,617	137,429	68,579	31
October	963,722	10,653	47,671	329	522,918	28,930	148,622	137,085	67,482	32
November	937,780	8,547	39,388	335	513,669	28,402	145,281	136,635	65,491	32
December	922,706	7,438	31,060	270	500,647	27,739	143,908	147,458	64,154	32
1932										
January	870,227	6,173	22,315	(1)	489,708	26,223	140,580	122,470	62,758	------
February	871,254	6,299	22,659	(1)	496,479	22,255	140,129	121,311	62,122	------
March	863,071	6,395	22,329	(1)	489,228	20,094	140,239	123,385	61,401	------
April	850,779	8,107	26,478	(1)	475,021	13,734	141,949	123,928	61,562	------
May	840,295	8,419	29,316	(1)	465,873	9,140	142,311	124,323	60,913	------
June	834,411	8,989	30,984	(1)	460,345	9,877	141,038	122,579	60,599	------
July	814,175	9,785	31,057	(1)	444,690	12,938	136,815	118,746	60,144	------
August	798,226	8,745	31,915	(1)	430,189	15,321	135,882	116,929	59,245	------
September	823,317	9,211	32,693	(1)	445,724	18,941	137,759	120,176	58,813	------
October	832,923	9,459	31,949	(1)	449,596	22,879	136,421	123,830	58,789	------
November	820,891	7,298	27,641	(1)	446,593	23,987	134,541	123,167	57,664	------
December	814,969	6,096	20,891	(1)	440,745	24,804	133,192	132,010	57,231	------

[1] Combined with "Trade, wholesale and retail," in 1932.

The month of maximum and the month of minimum employment and also the variation in number employed are shown for each industry group for 1931 and 1932 in table 6. The variation from maximum for both sexes combined was 10.8 percent in 1931 and 8.4 percent in 1932. Considering only industry groups numerically important, the greatest variation among males was shown in construction in 1931 and in mining in 1932, while among females the greatest variation occurred in wholesale and retail trade each year.

Manufactures includes approximately three fifths of the males covered in the report although the percentage has declined during the last 3 years. Approximately one half of the females covered were in manufactures in 1928 and 1929 but the proportion has since dropped. The percentage in the manufactures group for males was 64.8 in 1928, 65.1 in 1929, 61.4 in 1930, 59.6 in 1931, and 59.2 in 1932, and for females 50.4 in 1928, 50.5 in 1929, 47.0 in 1930, 44.7 in 1931, and 44.4 in 1932. In this industry group the variation of the minimum month from the maximum for males was 15.8 percent in 1931 and 14.2 in 1932 and for females 9.8 percent in 1931 and 10.2 in 1932.

Charts 1 to 6 show in graphic form the course of employment of males and of females in all industries combined and in manufactures, of both sexes in all industries, and of males in construction each year from 1914 to 1932. The line is broken at the end of each year as the number of establishments is not the same from year to year. Within each year, however, the establishments are identical throughout the 12 months.[3]

August 1932 marks the lowest point during the years of depression and from that date there was apparently a slight upturn in employment to the end of the period covered by this report. August had never appeared as the month of lowest employment within any of the years 1914 to 1931, inclusive, for all industries combined or for any of the eight industry groups with the exception of wholesale and retail trade in 1930. August marked minimum employment for males in trade only in 1914, 1921, and 1930 and for females in trade only in 7 of the 18 previous years. In 1932, however, August marked the lowest point of employment for both sexes combined in manufactures and in trade and in the total for all industries combined; for males in manufactures, trade, and all industries combined; and for females in service trade, and all industries combined.

The slight upturn following August is also out of the usual course as indicated by previous years with the exception of 1915, 1916, and 1922 and December 1919.

TABLE 6.—MAXIMUM AND MINIMUM EMPLOYMENT IN 1931 AND 1932 IN EACH INDUSTRY GROUP IN OHIO, BY SEX

Sex, and industry group	Maximum		Minimum		Variation from maximum	
	Number	Month	Number	Month	Number	Percent
Males						
1931						
All industries	773,732	May	669,492	December	104,240	13.5
Agriculture	10,335	July	6,273	February	4,062	39.3
Construction	52,970	do	29,290	December	23,680	44.7
Fisheries	361	April	178	January	183	(a)
Manufactures	468,822	do	394,770	December	74,052	15.8
Mining and quarrying	28,816	October	25,295	June	3,521	12.2
Service	87,813	June	80,873	December	6,940	7.9
Trade, wholesale and retail	83,319	May	81,193	November	2,126	2.6
Transportation and public utilities	51,848	January	47,522	December	4,326	8.3
Industries not otherwise classified	19	June	14	January	5	(a)

[a] Not computed owing to small number involved.

[3] The basic figures for these charts for the years 1914 to 1923, inclusive, will be found in U.S. Bureau of Labor Statistics Bul. No. 553: Fluctuation of employment in Ohio, 1914 to 1929. Information was requested during 1914 to 1923, inclusive, of all employers of 5 or more persons and during 1924 to 1932 of all employers of 3 or more persons in all industry groups except interstate transportation and government activities.

TABLE 6.—MAXIMUM AND MINIMUM EMPLOYMENT IN 1931 AND 1932 IN EACH INDUSTRY GROUP IN OHIO, BY SEX—Continued

Sex, and industry group	Maximum		Minimum		Variation from maximum	
	Number	Month	Number	Month	Number	Percent
1932						
All industries	639,773	January	583,853	August	55,920	8.7
Agriculture	8,842	July	5,466	December	3,376	38.2
Construction	31,341	September	19,597	do	11,744	37.5
Manufactures	391,330	February	335,631	August	55,699	14.2
Mining and quarrying	26,109	January	9,047	May	17,062	65.3
Service	80,572	May	74,706	December	5,866	7.3
Trade, wholesale and retail	75,148	December	72,588	August	2,560	3.4
Transportation and public utilities	46,358	January	43,021	December	3,337	7.2
Females						
1931						
All industries	260,751	May	247,651	November	13,100	5.0
Agriculture	1,146	July	749	December	397	34.6
Construction	1,980	May	1,770	do	210	10.6
Manufactures	117,387	do	105,877	do	11,510	9.8
Mining and quarrying	(1)	(1)	(1)	(1)	(1)	(1)
Service	67,420	June	63,035	December	4,385	6.5
Trade, wholesale and retail	65,022	December	51,863	February	13,159	20.2
Transportation and public utilities	18,477	January	16,632	December	1,845	10.0
Industries not otherwise classified	16	May	12	January	4	(1)
1932						
All industries	233,628	March	214,373	August	19,255	8.2
Agriculture	946	May	603	January	343	36.3
Construction	1,428	January	1,294	December	134	9.4
Manufactures	105,149	February	94,388	July	10,761	10.2
Mining and quarrying	(1)	(1)	(1)	(1)	(1)	(1)
Service	62,195	January	58,263	August	3,932	6.3
Trade, wholesale and retail	56,862	December	44,341	do	12,521	22.0
Transportation and public utilities	16,400	January	14,210	December	2,190	13.4
Both sexes						
1931						
All industries	1,034,483	May	922,706	do	111,777	10.8
Agriculture	11,481	July	7,074	February	4,467	38.4
Construction	54,885	do	31,060	December	23,825	43.4
Fisheries	361	April	178	January	183	(1)
Manufactures	585,839	do	500,647	December	85,192	14.5
Mining and quarrying	28,930	October	25,403	June	3,527	12.2
Service	155,233	June	143,908	December	11,325	7.3
Trade, wholesale and retail	147,458	December	133,540	February	13,918	9.4
Transportation and public utilities	70,325	January	64,154	December	6,171	8.8
Industries not otherwise classified	34	May	26	January	8	(1)
1932						
All industries	871,254	February	798,226	August	73,028	8.4
Agriculture	9,785	July	6,096	December	3,689	37.7
Construction	32,693	September	20,891	do	11,802	36.1
Manufactures	496,479	February	430,189	August	66,290	13.4
Mining and quarrying	26,223	January	9,140	May	17,083	65.1
Service	142,311	May	133,192	December	9,119	6.4
Trade, wholesale and retail	132,010	December	116,929	August	15,081	11.4
Transportation and public utilities	62,758	January	57,231	December	5,527	8.8

[1] Not computed owing to small number involved.
[2] All "office help" and fluctuation not reported except for coal mining.

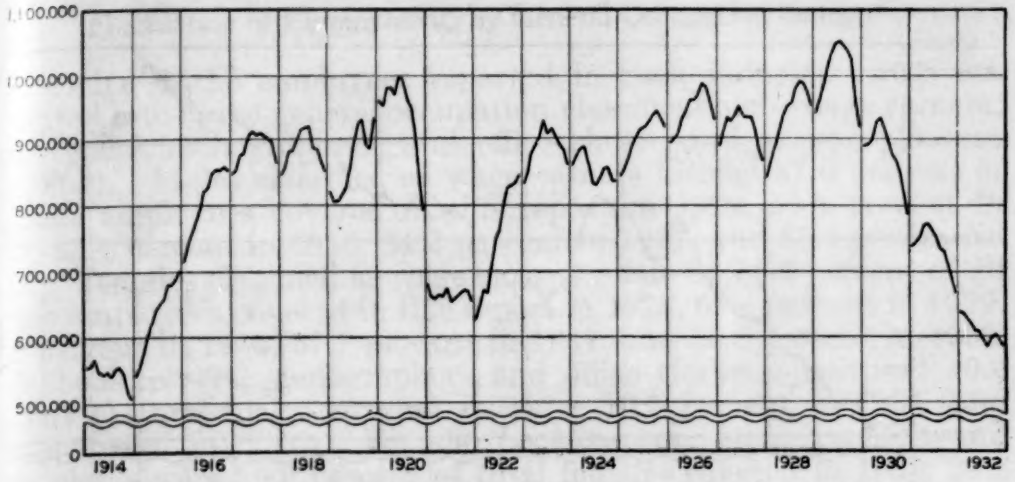

Figure 1.—FLUCTUATION OF EMPLOYMENT OF MALES IN ALL INDUSTRIES, 1914 TO 1932

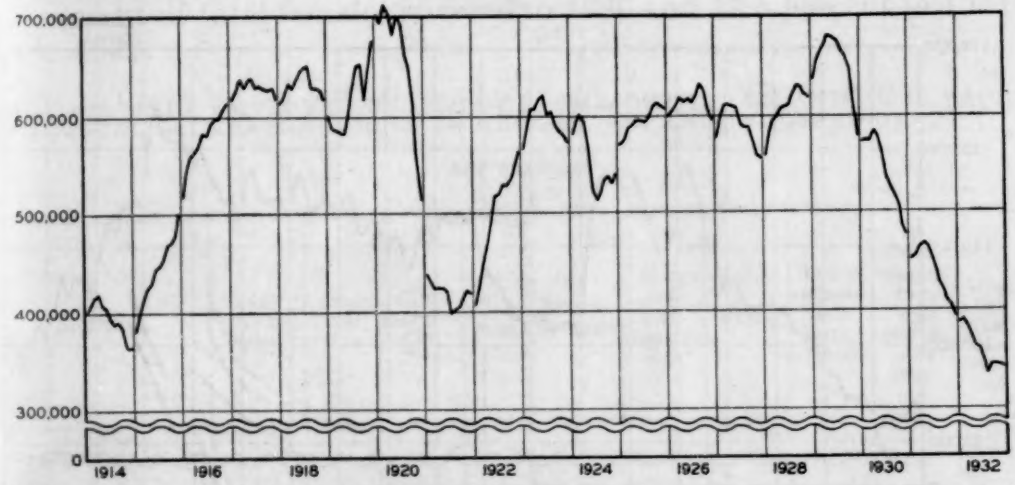

Figure 2.—FLUCTUATION OF EMPLOYMENT OF MALES IN MANUFACTURES, 1914 TO 1932

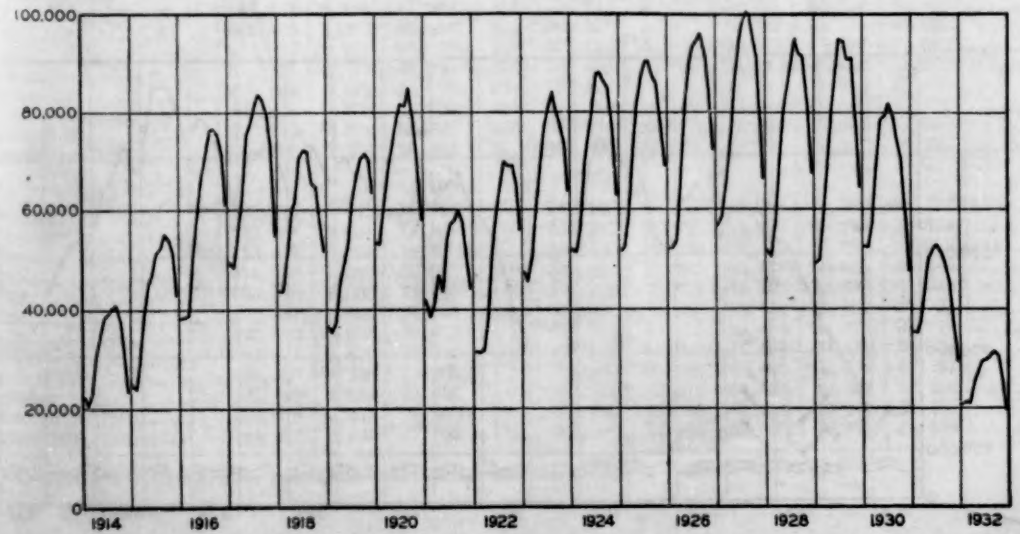

Figure 3.—FLUCTUATION OF EMPLOYMENT OF MALES IN THE CONSTRUCTION INDUSTRY, 1914 TO 1932

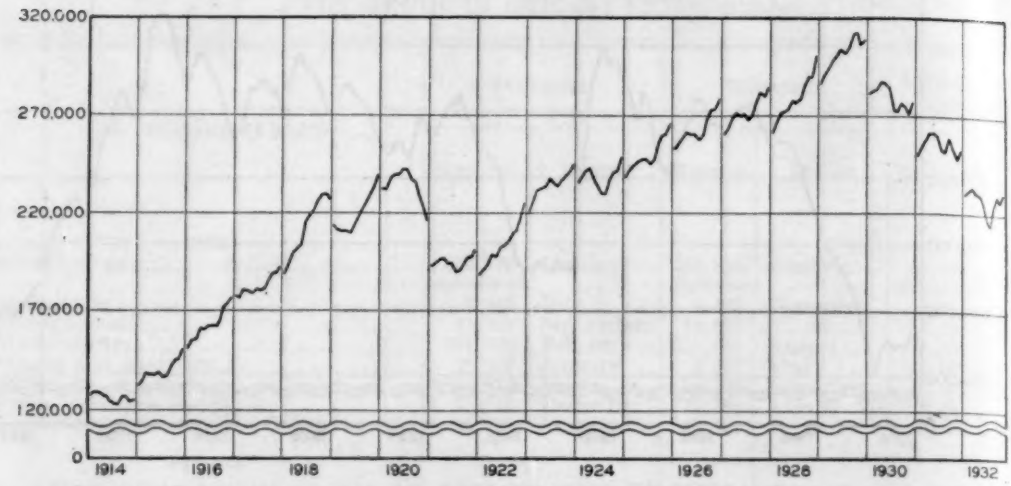

Figure 4.—FLUCTUATION OF EMPLOYMENT OF FEMALES IN ALL INDUSTRIES 1914 TO 1932

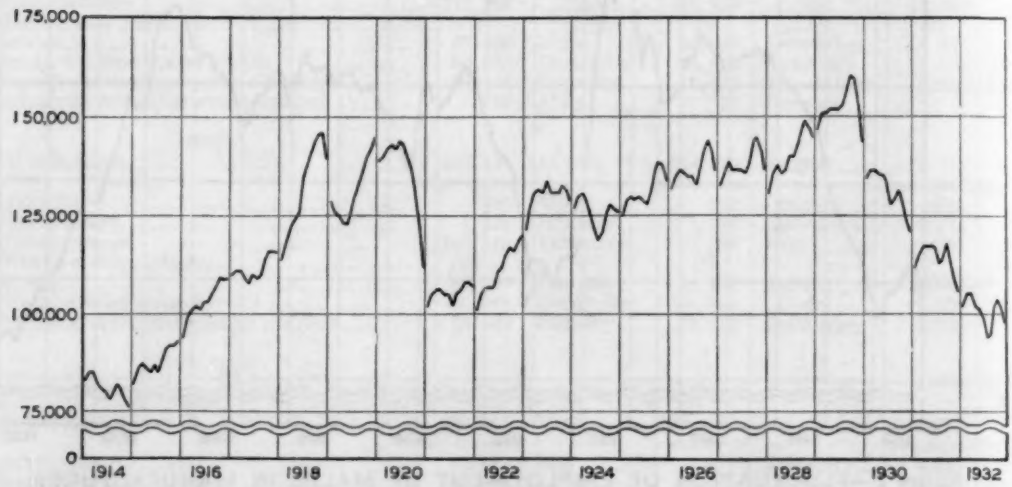

Figure 5.—FLUCTUATION OF EMPLOYMENT OF FEMALES IN MANUFACTURES, 1914 TO 1932

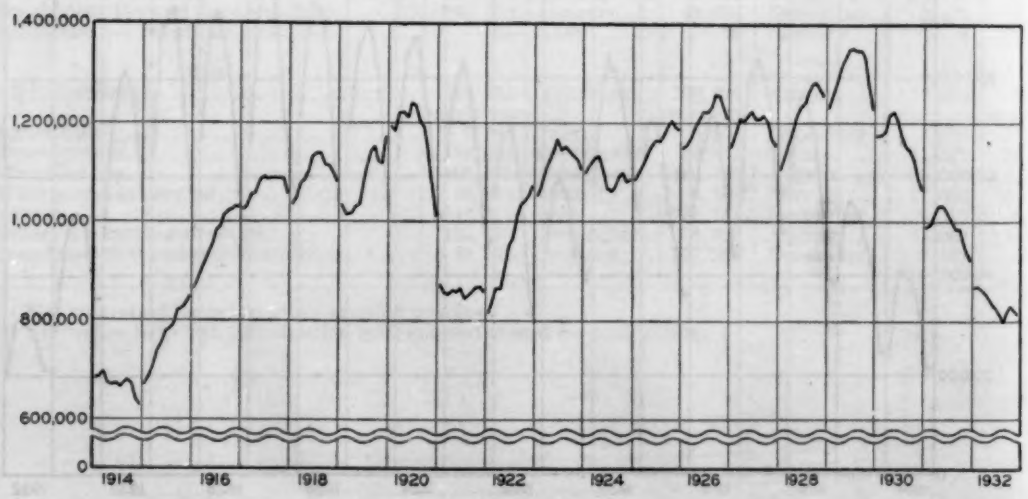

Figure 6.—FLUCTUATION OF EMPLOYMENT OF BOTH SEXES IN ALL INDUSTRIES, 1914 TO 1932

Fluctuation of Employment, by General Occupation Groups

IN TABLE 7 the employees reported in each industry group are separated into three general occupation classifications—wage earners; bookkeepers, stenographers, and office clerks; and salespeople (not traveling). Males classified as wage earners formed 87.0 percent of all male employees covered in this report in 1928, 86.5 percent in 1929, 85.4 percent in 1930, 84.2 percent in 1931, and 83.1 percent in 1932. Females classified as wage earners made up 60.6 percent of all female employees covered in this report in 1928, 60.4 percent in 1929, 58.2 percent in 1930, 57.7 percent in 1931, and 57.6 percent in 1932. Male bookkeepers, stenographers, and office clerks constituted 10.2 percent of total males covered in 1930, 10.5 percent in 1931, and 11.0 percent in 1932. Female bookkeepers, stenographers and office clerks were 30.2 percent of total females covered in 1930, 29.8 percent in 1931, and 29.9 percent in 1932. Salesmen (not traveling) made up 4.4 percent of total males covered in 1930, 5.3 percent in 1931, and 5.9 percent in 1932. Saleswomen (not traveling) formed 11.6 percent of total females covered in 1930 and 12.5 percent in 1931 and in 1932.

TABLE 7.—NUMBER EMPLOYED ON 15TH OF EACH MONTH IN 1931 AND 1932 IN EACH GENERAL OCCUPATION GROUP IN OHIO, BY SEX AND INDUSTRY GROUP

Wage earners

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Males										
1931										
January	621,622	6,168	33,309	178	411,136	27,540	53,791	45,618	43,882	------
February	625,496	6,136	32,932	202	415,667	27,797	54,436	45,299	43,027	------
March	635,184	6,615	35,086	255	422,721	27,449	55,099	45,572	42,387	------
April	652,701	8,142	42,607	361	427,215	26,429	58,204	46,015	43,728	------
May	655,327	8,411	47,302	355	424,717	25,771	58,921	45,923	43,927	------
June	647,865	9,237	49,554	324	414,391	24,995	59,503	45,770	44,091	------
July	634,243	10,191	50,125	261	401,167	25,028	58,623	45,337	43,511	------
August	618,775	9,177	48,880	270	387,486	25,996	58,046	45,451	43,469	------
September	614,298	9,079	46,777	324	382,533	27,838	58,370	45,946	43,431	------
October	596,824	9,470	43,124	329	370,776	28,507	56,588	45,489	42,541	------
November	577,154	7,571	35,022	335	365,914	27,975	54,608	44,664	41,065	------
December	556,108	6,538	26,788	270	356,434	27,312	53,704	45,031	40,031	------
1932										
January	533,129	5,442	18,754	(1)	349,166	25,846	53,988	41,036	38,897	------
February	532,904	5,491	19,108	(1)	353,262	21,888	54,006	40,686	38,463	------
March	523,917	5,578	18,820	(1)	346,440	19,732	54,144	41,290	37,913	------
April	514,310	7,092	22,892	(1)	335,880	13,402	55,927	40,869	38,248	------
May	505,678	7,300	25,736	(1)	328,766	8,832	56,720	40,585	37,739	------
June	505,311	7,909	27,399	(1)	325,822	9,567	56,412	40,407	37,795	------
July	495,810	8,695	27,515	(1)	315,251	12,615	54,484	39,474	37,776	------
August	483,374	7,826	28,399	(1)	301,038	14,992	54,468	39,330	37,321	------
September	498,100	8,220	29,203	(1)	309,206	18,599	55,686	39,939	37,247	------
October	503,496	8,544	28,524	(1)	311,526	22,525	54,524	40,397	37,456	------
November	494,013	6,521	24,350	(1)	309,700	23,630	53,252	40,072	36,488	------
December	484,137	5,325	17,708	(1)	307,970	24,444	52,098	40,443	36,149	------

[1] Combined with "Trade, wholesale and retail," in 1932.

TABLE 7.—NUMBER EMPLOYED ON 15TH OF EACH MONTH IN 1931 AND 1932 IN EACH GENERAL OCCUPATION GROUP IN OHIO, BY SEX AND INDUSTRY GROUP—Con.

Wage earners—Continued

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Females										
1931										
January	142,869	472	102	.....	81,039	.....	39,733	9,534	11,989	.....
February	146,608	467	98	.....	84,504	.....	40,189	9,447	11,903	.....
March	149,363	527	95	.....	86,581	.....	40,573	9,771	11,816	.....
April	150,630	646	98	.....	86,560	.....	41,224	10,384	11,718	.....
May	151,335	705	119	.....	87,052	.....	41,745	10,088	11,626	.....
June	151,089	804	117	.....	86,407	.....	42,278	9,925	11,558	.....
July	146,635	867	110	.....	83,693	.....	41,100	9,456	11,409	.....
August	146,140	700	113	.....	84,589	.....	40,153	9,279	11,306	.....
September	151,764	744	109	.....	89,001	.....	40,697	10,109	11,104	.....
October	146,851	764	119	.....	84,586	.....	40,108	10,267	11,007	.....
November	141,834	562	104	.....	81,044	.....	39,515	9,952	10,657	.....
December	139,669	480	107	.....	78,175	.....	38,998	11,453	10,456	.....
1932										
January	132,230	358	61	(1)	75,064	.....	37,793	8,730	10,224	.....
February	135,185	406	62	(1)	78,347	.....	37,842	8,437	10,091	.....
March	135,530	404	60	(1)	78,459	.....	37,945	8,637	10,025	.....
April	133,547	561	68	(1)	75,845	.....	38,102	9,018	9,953	.....
May	132,546	667	67	(1)	75,035	.....	37,952	8,922	9,903	.....
June	130,190	695	63	(1)	73,530	.....	37,565	8,650	9,687	.....
July	123,762	719	52	(1)	69,567	.....	35,750	8,259	9,415	.....
August	122,770	562	57	(1)	70,045	.....	35,147	7,884	9,075	.....
September	131,192	632	61	(1)	77,217	.....	36,230	8,285	8,767	.....
October	133,376	568	66	(1)	78,796	.....	36,270	9,053	8,623	.....
November	131,776	435	53	(1)	77,766	.....	36,039	8,940	8,543	.....
December	128,315	388	54	(1)	73,777	.....	35,933	9,706	8,457	.....
Both sexes										
1931										
January	764,491	6,640	33,411	178	492,175	27,540	93,524	55,152	55,871	.....
February	772,104	6,603	33,030	202	500,171	27,797	94,625	54,746	54,930	.....
March	784,547	7,142	35,181	255	509,302	27,449	95,672	55,343	54,203	.....
April	803,331	8,788	42,705	361	513,775	26,429	99,428	56,399	55,446	.....
May	806,662	9,116	47,421	355	511,769	25,771	100,666	56,011	55,553	.....
June	798,954	10,041	49,671	324	500,798	24,995	101,781	55,695	55,649	.....
July	780,878	11,058	50,235	261	484,860	25,028	99,723	54,793	54,920	.....
August	764,915	9,877	48,993	270	472,075	25,996	98,199	54,730	54,775	.....
September	766,062	9,823	46,886	324	471,534	27,838	99,067	56,055	54,535	.....
October	743,675	10,234	43,243	329	455,362	28,507	96,696	55,756	53,548	.....
November	718,988	8,133	35,126	335	446,958	27,975	94,123	54,616	51,722	.....
December	695,777	7,018	26,895	270	434,609	27,312	92,702	56,484	50,487	.....
1932										
January	665,359	5,800	18,815	(1)	424,230	25,846	91,781	49,766	49,121	.....
February	668,089	5,897	19,170	(1)	431,609	21,888	91,848	49,123	48,554	.....
March	659,447	5,982	18,880	(1)	424,899	19,732	92,089	49,927	47,938	.....
April	647,857	7,653	22,960	(1)	411,725	13,402	94,029	49,887	48,201	.....
May	638,224	7,967	25,803	(1)	403,801	8,832	94,672	49,507	47,642	.....
June	635,501	8,604	27,462	(1)	399,352	9,567	93,977	49,057	47,482	.....
July	619,572	9,414	27,567	(1)	384,818	12,615	90,234	47,733	47,191	.....
August	606,144	8,388	28,456	(1)	371,083	14,992	89,615	47,214	46,396	.....
September	629,292	8,852	29,264	(1)	386,423	18,599	91,916	48,224	46,014	.....
October	636,872	9,112	28,590	(1)	390,322	22,525	90,794	49,450	46,079	.....
November	625,789	6,956	24,403	(1)	387,466	23,630	89,291	49,012	45,031	.....
December	612,452	5,713	17,762	(1)	381,747	24,444	88,031	50,149	44,606	.....

[1] Combined with "Trade, wholesale and retail," in 1932.

TABLE 7.—NUMBER EMPLOYED ON 15TH OF EACH MONTH IN 1931 AND 1932 IN EACH GENERAL OCCUPATION GROUP IN OHIO, BY SEX AND INDUSTRY GROUP—Con.

Bookkeepers, stenographers, and office clerks

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Males										
1931										
January	79,942	105	1,885	------	38,356	309	24,694	7,447	7,134	12
February	79,729	104	1,895	------	38,199	307	24,720	7,434	7,057	13
March	79,544	102	1,906	------	38,136	307	24,590	7,417	7,072	14
April	78,988	106	1,918	------	37,927	303	24,331	7,418	6,970	15
May	78,726	107	1,923	------	37,750	302	24,314	7,356	6,959	15
June	78,200	104	1,901	------	37,425	300	24,158	7,341	6,955	16
July	77,676	100	1,885	------	37,044	302	24,169	7,265	6,897	14
August	77,291	101	1,891	------	36,634	304	24,187	7,264	6,897	13
September	76,391	98	1,875	------	35,969	304	24,022	7,207	6,903	13
October	75,588	103	1,806	------	35,466	309	23,887	7,168	6,835	14
November	74,700	101	1,755	------	35,007	313	23,592	7,129	6,789	14
December	74,286	101	1,722	------	34,726	313	23,522	7,127	6,761	14
1932										
January	70,667	83	1,477	(1)	34,503	263	21,021	6,668	6,652	------
February	70,057	103	1,456	(1)	34,173	255	20,808	6,639	6,623	------
March	69,436	107	1,429	(1)	33,856	252	20,552	6,669	6,571	------
April	68,679	111	1,438	(1)	33,279	231	20,410	6,666	6,544	------
May	67,485	105	1,411	(1)	32,440	215	20,210	6,591	6,513	------
June	66,430	102	1,405	(1)	31,763	218	19,951	6,562	6,429	------
July	65,412	104	1,392	(1)	31,180	230	19,696	6,488	6,322	------
August	64,758	104	1,370	(1)	30,759	235	19,598	6,444	6,248	------
September	64,627	104	1,370	(1)	30,734	242	19,498	6,444	6,235	------
October	64,507	105	1,353	(1)	30,637	251	19,457	6,476	6,228	------
November	64,262	104	1,348	(1)	30,661	253	19,250	6,476	6,170	------
December	64,199	102	1,318	(1)	30,613	254	19,236	6,497	6,179	------
Females										
1931										
January	78,118	294	1,838	------	29,139	119	24,829	15,475	6,412	12
February	77,858	303	1,841	------	29,115	117	24,848	15,236	6,385	13
March	77,877	316	1,828	------	29,151	117	24,778	15,271	6,402	14
April	77,469	331	1,831	------	28,950	116	24,834	15,161	6,231	15
May	77,285	302	1,824	------	28,860	112	24,713	15,131	6,327	16
June	76,821	274	1,799	------	28,612	108	24,707	15,005	6,302	14
July	75,908	254	1,773	------	28,195	103	24,496	14,867	6,295	15
August	75,551	259	1,771	------	27,894	104	24,482	14,706	6,320	15
September	75,083	259	1,734	------	27,703	113	24,242	14,695	6,322	15
October	73,818	245	1,678	------	26,981	114	23,876	14,626	6,283	15
November	72,872	241	1,649	------	26,641	114	23,505	14,549	6,158	15
December	72,853	240	1,630	------	26,252	114	23,583	14,908	6,111	15
1932										
January	71,333	221	1,342	(1)	26,048	114	23,954	13,550	6,104	------
February	70,567	235	1,326	(1)	25,796	112	23,611	13,416	6,071	------
March	70,277	233	1,329	(1)	25,511	110	23,673	13,397	6,024	------
April	69,402	257	1,328	(1)	25,029	101	23,482	13,229	5,976	------
May	68,887	254	1,328	(1)	24,639	93	23,361	13,263	5,949	------
June	67,831	213	1,323	(1)	24,289	92	23,028	12,988	5,898	------
July	66,896	204	1,283	(1)	23,824	93	22,887	12,722	5,883	------
August	66,054	190	1,273	(1)	23,516	94	22,685	12,448	5,848	------
September	66,096	193	1,268	(1)	23,724	100	22,475	12,546	5,790	------
October	66,119	179	1,263	(1)	23,779	103	22,372	12,703	5,720	------
November	65,766	178	1,241	(1)	23,634	104	22,234	12,688	5,687	------
December	65,921	218	1,217	(1)	23,607	106	22,116	12,969	5,688	------
Both sexes										
1931										
January	158,060	399	3,723	------	67,495	428	49,523	22,922	13,546	24
February	157,587	407	3,736	------	67,314	424	49,568	22,670	13,442	26
March	157,421	418	3,734	------	67,287	424	49,368	22,688	13,474	28
April	156,457	437	3,749	------	66,877	419	49,165	22,579	13,201	30
May	156,011	409	3,747	------	66,610	414	49,027	22,487	13,286	31
June	155,021	378	3,700	------	66,037	408	48,865	22,346	13,257	30
July	153,674	354	3,658	------	65,239	405	48,665	22,132	13,192	29
August	152,842	360	3,662	------	64,528	408	48,669	21,970	13,217	28
September	151,474	357	3,609	------	63,672	417	48,264	21,902	13,225	28
October	149,406	348	3,484	------	62,447	423	47,763	21,794	13,118	29
November	147,572	342	3,404	------	61,648	427	47,097	21,678	12,947	29
December	147,139	341	3,352	------	60,978	427	47,105	22,035	12,872	29

[1] Combined with "Trade, wholesale and retail," in 1932.

TABLE 7.—NUMBER EMPLOYED ON 15TH OF EACH MONTH IN 1931 AND 1932 IN EACH GENERAL OCCUPATION GROUP IN OHIO, BY SEX AND INDUSTRY GROUP—Con.

Bookkeepers, stenographers, and office clerks—Continued

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Both sexes—Continued										
1932										
January	142,000	304	2,819	(1)	60,551	377	44,975	20,218	12,756	.....
February	140,624	338	2,782	(1)	59,969	367	44,419	20,055	12,694	.....
March	139,713	340	2,758	(1)	59,367	362	44,225	20,066	12,595	.....
April	138,081	368	2,766	(1)	58,308	332	43,892	19,895	12,520	.....
May	136,372	359	2,739	(1)	57,079	308	43,571	19,854	12,462	.....
June	134,261	315	2,728	(1)	56,052	310	42,979	19,550	12,327	.....
July	132,308	308	2,675	(1)	55,004	323	42,583	19,210	12,205	.....
August	130,812	294	2,643	(1)	54,275	329	42,283	18,892	12,096	.....
September	130,723	297	2,638	(1)	54,458	342	41,973	18,990	12,025	.....
October	130,626	284	2,616	(1)	54,416	354	41,829	19,179	11,948	.....
November	130,028	282	2,589	(1)	54,295	357	41,484	19,164	11,857	.....
December	130,120	320	2,535	(1)	54,220	360	41,352	19,466	11,867	.....

Salespeople (not traveling)

Males										
1931										
January	37,942	33	701	.....	3,595	.....	3,724	29,055	832	2
February	37,949	33	722	.....	3,569	.....	3,868	28,944	811	2
March	38,365	36	714	.....	3,646	.....	4,011	29,168	787	3
April	39,383	51	933	.....	3,680	.....	4,105	29,817	794	3
May	39,679	52	974	.....	3,689	.....	4,130	30,040	791	3
June	39,776	47	997	.....	3,679	.....	4,152	30,108	790	3
July	39,183	44	960	.....	3,662	.....	4,122	29,622	770	3
August	39,033	42	971	.....	3,687	.....	4,045	29,514	771	3
September	38,815	44	944	.....	3,670	.....	3,838	29,565	751	3
October	38,446	47	913	.....	3,650	.....	3,712	29,373	748	3
November	38,275	49	827	.....	3,620	.....	3,621	29,400	755	3
December	39,098	50	780	.....	3,610	.....	3,647	30,278	730	3
1932										
January	35,977	45	656	(1)	3,909	.....	3,376	27,182	809	.....
February	36,006	41	682	(1)	3,895	.....	3,426	27,160	802	.....
March	36,090	49	666	(1)	3,940	.....	3,478	27,164	793	.....
April	36,602	63	725	(1)	3,948	.....	3,594	27,504	768	.....
May	36,756	68	749	(1)	3,954	.....	3,642	27,609	734	.....
June	36,787	49	771	(1)	3,924	.....	3,652	27,671	720	.....
July	36,150	43	791	(1)	3,871	.....	3,567	27,193	685	.....
August	35,721	41	791	(1)	3,834	.....	3,553	26,814	688	.....
September	35,865	40	768	(1)	3,855	.....	3,463	27,030	709	.....
October	36,112	43	719	(1)	3,858	.....	3,389	27,405	698	.....
November	35,909	40	626	(1)	3,832	.....	3,338	27,361	712	.....
December	36,664	39	571	(1)	3,781	.....	3,372	28,208	693	.....
Females										
1931										
January	29,497	27	35	.....	1,464	.....	402	27,493	76	.....
February	29,193	31	38	.....	1,471	.....	401	27,180	72	.....
March	30,761	29	41	.....	1,456	.....	408	28,759	68	.....
April	32,469	42	42	.....	1,507	.....	418	30,386	74	.....
May	32,131	42	37	.....	1,475	.....	422	30,082	73	.....
June	31,926	31	34	.....	1,482	.....	435	29,873	71	.....
July	30,376	25	32	.....	1,460	.....	479	28,305	66	.....
August	30,046	23	31	.....	1,455	.....	440	28,029	68	.....
September	31,934	26	30	.....	1,455	.....	448	29,907	68	.....
October	32,195	24	31	.....	1,459	.....	451	30,162	68	.....
November	32,945	23	31	.....	1,443	.....	440	30,941	67	.....
December	40,692	29	33	.....	1,450	.....	454	38,661	65	.....

[1] Combined with "Trade, wholesale and retail," in 1932.

TABLE 7.—NUMBER EMPLOYED ON 15TH OF EACH MONTH IN 1931 AND 1932 IN EACH GENERAL OCCUPATION GROUP IN OHIO, BY SEX AND INDUSTRY GROUP—Con.

Salespeople (not traveling)—Continued

Month	All industries	Agriculture	Construction	Fisheries	Manufactures	Mining and quarrying	Service	Trade, wholesale and retail	Transportation and public utilities	Industries not otherwise classified
Females—Contd.										
1932										
January	26,891	24	25	(1)	1,018	------	448	25,304	72	------
February	26,535	23	25	(1)	1,006	------	436	24,973	72	------
March	27,821	24	25	(1)	1,022	------	447	26,228	75	------
April	28,239	23	27	(1)	1,040	------	434	26,642	73	------
May	28,943	25	25	(1)	1,039	------	426	27,353	75	------
June	27,862	21	23	(1)	1,017	------	430	26,301	70	------
July	26,145	20	24	(1)	997	------	431	24,610	63	------
August	25,549	22	25	(1)	997	------	431	24,009	65	------
September	27,437	22	23	(1)	988	------	407	25,932	65	------
October	29,313	20	24	(1)	1,000	------	409	27,796	64	------
November	29,165	20	23	(1)	1,000	------	428	27,630	64	------
December	35,733	24	23	(1)	997	------	437	34,187	65	------
Both sexes										
1931										
January	67,439	60	736	------	5,059	------	4,126	56,548	908	2
February	67,142	64	760	------	5,040	------	4,269	56,124	882	2
March	69,126	65	755	------	5,102	------	4,419	57,927	855	3
April	71,852	93	975	------	5,187	------	4,523	60,203	868	3
May	71,810	94	1,011	------	5,164	------	4,552	60,122	864	3
June	71,702	78	1,031	------	5,161	------	4,587	59,981	861	3
July	69,559	69	992	------	5,131	------	4,601	57,927	836	3
August	69,079	65	1,002	------	5,142	------	4,485	57,543	839	3
September	70,749	70	974	------	5,125	------	4,286	59,472	819	3
October	70,641	71	944	------	5,109	------	4,163	59,535	816	3
November	71,220	72	858	------	5,063	------	4,061	60,341	822	3
December	79,790	79	813	------	5,060	------	4,101	68,939	795	3
1932										
January	62,868	69	681	(1)	4,927	------	3,824	52,486	881	------
February	62,541	64	707	(1)	4,901	------	3,862	52,133	874	------
March	63,911	73	691	(1)	4,962	------	3,925	53,392	868	------
April	64,841	86	752	(1)	4,988	------	4,028	54,146	841	------
May	65,699	93	774	(1)	4,993	------	4,068	54,962	809	------
June	64,649	70	794	(1)	4,941	------	4,082	53,972	790	------
July	62,295	63	815	(1)	4,868	------	3,998	51,803	748	------
August	61,270	63	816	(1)	4,831	------	3,984	50,823	753	------
September	63,302	62	791	(1)	4,843	------	3,870	52,962	774	------
October	65,425	63	743	(1)	4,858	------	3,798	55,201	762	------
November	65,074	60	649	(1)	4,832	------	3,766	54,991	776	------
December	72,397	63	594	(1)	4,778	------	3,809	62,395	758	------

[1] Combined with "Trade, wholesale and retail," in 1932.

Table 8 shows the month of maximum and the month of minimum employment and also the variation in number employed in each of the same three general occupation groups in 1931 and 1932. The data for each occupation are given by industry groups.

Considering both sexes combined, the variation from maximum in 1932 was 9.3 percent for wage earners, 8.4 percent for bookkeepers, stenographers, and office clerks, and 15.4 percent for salespeople (not traveling). In manufactures in 1932 the variation was 14 percent for wage earners, 10.5 percent for bookkeepers, stenographers, and office clerks, and 4.3 percent for salespeople (not traveling).

TABLE 8.—MAXIMUM AND MINIMUM EMPLOYMENT IN EACH GENERAL OCCUPATION GROUP IN OHIO IN 1931 AND 1932, BY SEX AND INDUSTRY GROUP

Wage earners

Industry group	Maximum		Minimum		Variation from maximum	
	Number	Month	Number	Month	Number	Percent
Males						
1931						
All industries	655,327	May	556,108	December	99,219	15.1
Agriculture	10,191	July	6,136	February	4,055	39.8
Construction	50,125	do	26,788	December	23,337	46.6
Fisheries	361	April	178	January	183	(1)
Manufactures	427,215	do	356,434	December	70,781	16.6
Mining and quarrying	28,507	October	24,995	June	3,512	12.3
Service	59,503	June	53,704	December	5,799	9.7
Trade, wholesale and retail	46,015	April	44,664	November	1,351	2.9
Transportation and public utilities	44,091	June	40,031	December	4,060	9.2
1932						
All industries	533,129	January	483,374	August	49,755	9.3
Agriculture	8,695	July	5,325	December	3,370	38.8
Construction	29,203	September	17,708	do	11,495	39.4
Manufactures	353,262	February	301,038	August	52,224	14.8
Mining and quarrying	25,846	January	8,832	May	17,014	65.8
Service	56,720	May	52,098	December	4,622	8.1
Trade, wholesale and retail	41,290	March	39,330	August	1,960	4.7
Transportation and public utilities	38,897	January	36,149	December	2,748	7.1
Females						
1931						
All industries	151,764	September	139,669	December	12,095	8.0
Agriculture	867	July	467	February	400	46.1
Construction	119	May, October	95	March	24	(1)
Manufactures	89,001	September	78,175	December	10,826	12.2
Service	42,278	June	38,998	Do	3,280	7.8
Trade, wholesale and retail	11,453	December	9,279	August	2,174	19.0
Transportation and public utilities	11,989	January	10,456	December	1,533	12.8
1932						
All industries	135,547	April	122,770	August	12,777	9.4
Agriculture	719	July	358	January	361	50.2
Construction	68	April	52	July	16	(1)
Manufactures	78,796	October	69,567	do	9,229	11.7
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	38,102	April	35,147	August	2,955	7.8
Trade, wholesale and retail	9,706	December	7,884	do	1,822	18.8
Transportation and public utilities	10,224	January	8,457	December	1,767	17.3
Both sexes						
1931						
All industries	806,662	May	695,777	December	110,885	13.7
Agriculture	11,058	July	6,603	February	4,455	40.3
Construction	50,235	do	26,895	December	23,340	46.5
Fisheries	361	April	178	January	183	(1)
Manufactures	513,775	do	434,609	December	79,166	15.4
Mining and quarrying	28,507	October	24,995	June	3,512	12.3
Service	101,781	June	92,702	December	9,079	8.9
Trade, wholesale and retail	56,484	December	54,616	November	1,868	3.3
Transportation and public utilities	55,871	January	50,487	December	5,384	9.6
1932						
All industries	668,089	February	606,144	August	61,945	9.3
Agriculture	9,414	July	5,713	December	3,701	39.3
Construction	29,264	September	17,762	do	11,502	39.3
Manufactures	431,609	February	371,083	August	60,526	14.0
Mining and quarrying	25,846	January	8,832	May	17,014	65.8
Service	94,672	May	88,031	December	6,641	7.0
Trade, wholesale and retail	50,149	December	47,214	August	2,935	5.9
Transportation and public utilities	49,121	January	44,606	December	4,515	9.2

[1] Not computed owing to small number involved.
[2] All "office help" and fluctuation not reported except for coal mining.

TABLE 8.—MAXIMUM AND MINIMUM EMPLOYMENT IN EACH GENERAL OCCUPATION GROUP IN OHIO IN 1931 AND 1932, BY SEX AND INDUSTRY GROUP—Con.

Bookkeepers, stenographers, and office clerks

Industry group	Maximum		Minimum		Variation from maximum	
	Number	Month	Number	Month	Number	Percent
Males						
1931						
All industries	79,942	January	74,286	December	5,656	7.1
Agriculture	107	May	98	September	9	(1)
Construction	1,923	do	1,722	December	201	10.5
Manufactures	38,356	January	34,726	do	3,630	9.5
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	24,720	February	23,522	December	1,198	4.8
Trade, wholesale and retail	7,447	January	7,127	do	320	4.3
Transportation and public utilities	7,134	do	6,761	do	373	5.2
Industries not otherwise classified	16	June	12	January	4	(1)
1932						
All industries	70,667	January	64,199	December	6,468	9.2
Agriculture	111	April	83	January	28	(1)
Construction	1,477	January	1,318	December	159	10.8
Manufactures	34,503	do	30,613	do	3,890	11.3
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	21,021	January	19,236	December	1,785	8.5
Trade, wholesale and retail	6,669	March	6,444	August; September	225	3.4
Transportation and public utilities	6,652	January	6,170	November	482	7.2
Females						
1931						
All industries	78,118	January	72,853	December	5,235	6.7
Agriculture	331	April	240	do	91	(1)
Construction	1,841	February	1,630	do	211	11.5
Manufactures	29,151	March	26,252	do	2,899	9.9
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	24,848	February	23,505	November	1,343	5.4
Trade, wholesale and retail	15,475	January	14,549	do	926	6.0
Transportation and public utilities	6,412	do	6,111	December	301	4.7
Industries not otherwise classified	16	May	12	January	4	(1)
1932						
All industries	71,333	January	65,766	November	5,567	7.8
Agriculture	257	April	178	do	79	(1)
Construction	1,342	January	1,217	December	125	9.3
Manufactures	26,048	do	23,516	August	2,532	9.7
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	23,954	January	22,116	December	1,838	7.7
Trade, wholesale and retail	13,550	do	12,448	August	1,102	8.1
Transportation and public utilities	6,104	do	5,687	November	417	6.8
Both sexes						
1931						
All industries	158,060	January	147,139	December	10,921	6.9
Agriculture	437	April	341	do	96	(1)
Construction	3,749	do	3,352	do	397	10.6
Manufactures	67,495	January	60,978	do	6,517	9.7
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	49,568	February	47,097	November	2,471	5.0
Trade, wholesale and retail	22,922	January	21,678	do	1,244	5.4
Transportation and public utilities	13,546	do	12,872	December	674	5.0
Industries not otherwise classified	31	May	24	January	7	(1)
1932						
All industries	142,000	January	130,028	November	11,972	8.4
Agriculture	368	April	282	do	86	(1)
Construction	2,819	January	2,535	December	284	10.1
Manufactures	60,551	do	54,220	do	6,331	10.5
Mining and quarrying	(2)	(2)	(2)	(2)	(2)	(2)
Service	44,975	January	41,352	December	3,623	8.1
Trade, wholesale and retail	20,218	do	18,892	August	1,326	6.6
Transportation and public utilities	12,756	do	11,857	November	899	7.0

[1] Not computed owing to small number involved.
[2] All "office help" and fluctuation not reported except for coal mining.

TABLE 8.—MAXIMUM AND MINIMUM EMPLOYMENT IN EACH GENERAL OCCUPATION GROUP IN OHIO IN 1931 AND 1932, BY SEX AND INDUSTRY GROUP—Con.

Salespeople (not traveling)

Industry group	Maximum		Minimum		Variation from maximum	
	Number	Month	Number	Month	Number	Percent
Males						
1931						
All industries	39,776	June	37,942	January	1,834	4.6
Agriculture	52	May	33	do.; February	19	(1)
Construction	997	June	701	January	296	29.7
Manufactures	3,689	May	3,569	February	120	3.3
Service	4,152	June	3,621	November	531	12.8
Trade, wholesale and retail	30,278	December	28,944	February	1,334	4.4
Transportation and public utilities	832	January	730	December	102	12.3
Industries not otherwise classified	3	March; December	2	January; February	1	(1)
1932						
All industries	36,787	June	35,721	August	1,066	2.9
Agriculture	68	May	39	December	29	(1)
Construction	791	July; August	571	do.	220	27.8
Manufactures	3,954	May	3,781	do.	173	4.4
Service	3,652	June	3,338	November	314	8.6
Trade, wholesale and retail	28,208	December	26,814	August	1,394	4.9
Transportation and public utilities	809	January	685	July	124	15.3
Females						
1931						
All industries	40,692	December	29,193	February	11,499	28.3
Agriculture	42	April; May	23	do.; November	19	(1)
Construction	42	April	30	September	12	(1)
Manufactures	1,507	do.	1,443	November	64	4.2
Service	479	July	401	February	78	(1)
Trade, wholesale and retail	38,661	December	27,180	do.	11,481	29.7
Transportation and public utilities	76	January	65	December	11	(1)
1932						
All industries	35,733	December	25,549	August	10,184	28.5
Agriculture	25	May	20	July; October; November	5	(1)
Construction	27	April	23	June; September; November; December	4	(1)
Manufactures	1,040	do.	988	September	52	5.0
Service	448	January	407	do.	41	(1)
Trade, wholesale and retail	34,187	December	24,009	August	10,178	29.8
Transportation and public utilities	75	March; May	63	July	12	(1)
Both sexes						
1931						
All industries	79,790	December	67,142	February	12,648	15.9
Agriculture	94	May	60	January	34	(1)
Construction	1,031	June	736	do.	295	28.6
Manufactures	5,187	April	5,040	February	147	2.8
Service	4,601	July	4,061	November	540	11.7
Trade, wholesale and retail	68,939	December	56,124	February	12,815	18.6
Transportation and public utilities	908	January	795	December	113	12.4
Industries not otherwise classified	3	March to December	2	January; February	1	(1)
1932						
All industries	72,397	December	61,270	August	11,127	15.4
Agriculture	93	May	60	November	33	(1)
Construction	816	August	594	December	222	27.2
Manufactures	4,993	May	4,778	do.	215	4.3
Service	4,082	June	3,766	November	316	7.7
Trade, wholesale and retail	62,395	December	50,823	August	11,572	18.5
Transportation and public utilities	881	January	748	July	133	15.1

[1] Not computed owing to small number involved.

The maximum, minimum, and average number reported in each of these three occupation groups are shown, by sex, in table 9 for each of the years 1924 to 1932.

Comparing the average number reported employed of both sexes combined in each of the three general occupation groups in 1932 with 1929, wage earners show a decrease of 414,339 or 39.4 percent; bookkeepers, stenographers, and office clerks a decrease of 33,893 or 20.1 percent; and salespeople (not traveling) a decrease of 22,178 or 25.6 percent.

Comparing the same 2 years for the two sexes, the males show a decrease of 41.7 percent for wage earners, 20.1 percent for bookkeepers, stenographers, and office clerks, and 30.2 percent for salesmen (not traveling), while females show a decrease of 28.3 percent for wage earners, 20.1 percent for bookkeepers, stenographers, and office clerks, and 18.6 percent for saleswomen (not traveling).

TABLE 9.—MAXIMUM, MINIMUM, AND AVERAGE NUMBER REPORTED IN SPECIFIED GENERAL OCCUPATION GROUPS IN OHIO, 1924 TO 1932, BY SEX

Wage earners

Year	Number of establishments reporting	Male			Female			Both sexes		
		Maximum, month	Minimum, month	Average of 12 monthly reports	Maximum, month	Minimum, month	Average of 12 monthly reports	Maximum, month	Minimum, month	Average of 12 monthly reports
1924	31,715	789,457	730,615	755,062	148,403	137,779	144,477	937,274	868,394	899,539
1925	34,605	837,381	744,327	800,471	160,576	144,391	152,297	997,957	888,718	952,768
1926	37,159	875,444	787,792	833,030	168,944	154,712	161,136	1,040,932	942,504	994,166
1927	39,635	836,494	749,785	805,001	172,279	156,733	164,440	1,000,737	913,961	969,441
1928	40,978	869,270	725,946	817,538	178,214	157,861	169,068	1,045,225	883,807	986,606
1929	43,160	916,978	782,529	868,834	191,212	174,078	182,555	1,099,880	958,450	1,051,389
1930	44,283	808,416	662,335	753,395	168,570	152,454	162,726	976,911	814,789	916,121
1931	43,168	655,327	556,108	619,633	151,764	139,669	147,066	806,662	695,777	766,699
1932	40,134	533,129	483,374	506,182	135,547	122,770	130,868	668,089	606,144	637,050
Bookkeepers, stenographers, and office clerks										
1924	31,715	68,218	67,497	67,864	66,627	65,374	65,979	134,542	132,871	133,843
1925	34,605	71,374	68,572	70,248	71,104	67,465	69,104	142,463	136,037	139,352
1926	37,159	74,574	71,862	73,613	75,017	71,169	73,173	149,474	143,031	146,786
1927	39,635	76,309	73,876	75,405	77,173	74,745	76,006	153,296	148,621	151,411
1928	40,978	79,460	75,288	77,640	79,591	74,694	77,072	159,051	149,982	154,712
1929	43,160	85,400	80,662	83,529	86,644	82,076	85,003	171,791	162,738	168,532
1930	44,283	90,948	87,593	89,944	86,206	81,743	84,575	177,070	169,515	174,519
1931	43,168	79,942	74,286	77,588	78,118	72,853	75,967	158,060	147,139	153,555
1932	40,134	70,667	64,199	66,710	71,333	65,766	67,929	142,000	130,028	134,639
Salespeople (not traveling)										
1924	31,715	36,005	32,628	34,136	36,363	25,750	27,970	72,368	58,947	62,106
1925	34,605	38,397	34,499	36,448	39,267	27,002	29,211	77,664	61,708	65,659
1926	37,159	42,273	38,357	40,097	40,416	27,264	29,797	82,689	65,760	69,894
1927	39,635	43,549	39,951	41,347	43,315	29,023	31,949	86,864	69,095	73,296
1928	40,978	47,734	42,228	44,639	46,822	29,135	32,834	94,556	71,599	77,473
1929	43,160	54,724	48,489	51,920	47,137	30,923	34,781	101,861	79,556	86,701
1930	44,283	39,466	38,074	38,733	42,557	29,554	32,487	82,006	67,628	71,220
1931	43,168	39,776	37,942	38,829	40,692	29,193	32,013	79,790	67,142	70,842
1932	40,134	36,787	35,721	36,220	35,733	25,549	28,303	72,397	61,270	64,523

Table 10 presents a comparison of employment fluctuation in each year from 1924 to 1932 for males and females in all industries combined and in each year from 1930 to 1932 in each of four industry groups in which large numbers both of males and of females are employed. The comparisons are for each of the three general occupation groups.

Comparing fluctuation by sex within the industry groups, it is seen that, in manufactures, males show considerably greater variation than do females, while in the clerical and sales groups females generally show a greater variation than do males. In wholesale and retail trade females show a greater variation in each of the three general occupation groups than do males. In transportation and public utilities, female wage earners show a greater variation than do male wage earners.

In all industries combined, the variation for male wage earners exceeds that for females in each year from 1924 to 1931 but is slightly less in 1932. Saleswomen (not traveling) show a very much greater variation than do salesmen (not traveling) in each of the years 1924 to 1932.

TABLE 10.—PERCENT OF VARIATION FROM MAXIMUM EMPLOYMENT IN GENERAL OCCUPATION GROUPS IN OHIO, BY SEX, FOR SPECIFIED INDUSTRY GROUPS FOR 1930 TO 1932 AND FOR ALL INDUSTRIES COMBINED FOR 1924 TO 1932

Industry group and year	Percent of variation from maximum employment among—								
	Wage earners			Bookkeepers, stenographers, and office clerks.			Salespeople (not traveling)		
	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
Manufactures:									
1930	19.6	12.7	18.5	5.0	7.9	6.1	3.5	4.7	3.6
1931	16.6	12.2	15.4	9.5	9.9	9.7	3.3	4.2	2.8
1932	14.8	11.7	14.0	11.3	9.7	10.5	4.4	5.0	4.3
Service:									
1930	11.2	6.6	9.3	3.3	4.1	3.4	18.3	(1)	15.2
1931	9.7	7.8	8.9	4.8	5.4	5.0	12.8	(1)	11.7
1932	8.1	7.8	7.0	8.5	7.7	8.1	8.6	(1)	7.7
Trade, wholesale and retail:									
1930	3.5	13.7	4.3	3.5	5.9	4.9	6.4	32.2	21.1
1931	2.9	19.0	3.3	4.3	6.0	5.4	4.4	29.7	18.6
1932	4.7	18.8	5.9	3.4	8.1	6.6	4.9	29.8	18.5
Transportation and public utilities:									
1930	12.4	13.3	12.0	4.8	7.5	5.9	8.9	(1)	10.0
1931	9.2	12.8	9.6	5.2	4.7	5.0	12.3	(1)	12.4
1932	7.1	17.3	9.2	7.2	6.8	7.0	15.3	(1)	15.1
All industries:									
1924	7.5	7.2	7.3	1.0	1.9	1.2	9.4	29.2	18.5
1925	11.1	10.1	10.9	3.9	5.1	4.5	10.2	31.2	20.5
1926	10.0	8.4	9.5	3.6	5.1	4.3	9.3	32.5	20.5
1927	10.4	9.0	8.7	3.2	3.1	3.0	8.3	33.0	20.5
1928	16.5	11.4	15.4	5.3	6.2	5.7	11.5	37.8	24.3
1929	14.7	9.0	12.9	5.5	5.3	5.3	11.4	34.4	21.9
1930	18.1	9.6	16.6	3.7	5.2	4.3	3.5	30.6	17.5
1931	15.1	8.0	13.7	7.1	6.7	6.9	4.6	28.3	15.9
1932	9.3	9.4	9.3	9.2	7.8	8.4	2.9	28.5	15.4

[1] Not computed owing to small number involved.

Conclusion

THIS analysis deals primarily with fluctuation of employment within each year. The data collected and compiled by the Division of Labor Statistics of the Ohio Department of Industrial Relations, however, make practically a complete coverage of all establishments employing

three or more persons, except those engaged in interstate transportation and government activities. With such coverage it is believed that the figures give some approximation of the extent of unemployment within the industry groups included.

During the 9-year period covered by this report, maximum employment for both sexes combined was in July 1929 and minimum employment was in August 1932. The maximum number was 1,356,004 and the minimum fell below that number by 557,778, or 41.1 percent.

Maximum employment for males during the 9-year period occurred in July 1929 and minimum employment in August 1932. The maximum number of males employed was 1,054,154 and the minimum fell below that number by 470,301, or 44.6 percent. Maximum employment for females during the 9-year period occurred in October 1929 and minimum employment in August 1932. The maximum number employed was 313,416 and the minimum fell below that number by 99,043, or 31.6 percent.

In considering these figures it should be borne in mind that reports are not included from establishments engaged in interstate transportation nor from government activities. Further, it should be noted that while these figures are remarkably inclusive, no measure is given of the total labor market. However, there is no reason to believe that the total number of persons employed or seeking employment was less in August 1932 than in July or October 1929 and the above figures may be reasonably put forward as approximate minima of unemployment in Ohio in 1932.

Subsistence-Homestead Movement Under National Recovery Act

THE National Industrial Recovery Act (Public, No. 67) approved June 16, 1933, contained a provision (sec. 208) appropriating $25,000,000 "to provide for aiding the redistribution of the overbalance of population in industrial centers" and authorizing the President to set up agencies "for making loans for and otherwise aiding in the purchase of subsistence homesteads."[1]

Acting under this authority the President delegated the carrying out of the program to the Secretary of the Interior. The latter set up in his department the Division of Subsistence Homesteads and created an advisory committee.[2] That committee held its first meeting September 26, 1933, and made the following recommendations for the administration of the $25,000,000 fund provided:

1. That, with due regard to immediate emergency needs, the fund be used as far as possible for the purpose of setting up demonstration projects which will point the way to a program of a permanent character. In this connection the committee emphasized the fundamental nature of the adjustments required to the changed conditions facing American agriculture and the industrial worker and the smallness of the fund in relation to the magnitude of the problem. In its opinion the establishment of experimental projects which would point to "the way out" is vital.

[1] For full text of National Industrial Recovery Act, see Monthly Labor Review, July 1933 (p. 75).

[2] The membership of this committee was as follows: Senator John H. Bankhead, of Alabama, chairman; Hayden B. Harris; W. A. Julian, Treasurer of the United States; Edward A. O'Neil; Louis J. Taber; Bernarr MacFadden; Louis Brownlow; Dr. John B. Black; P. V. Cardon; Ralph E. Flanders; Dr. John A. Ryan; Bernard G. Waring; George Soule; Meyer Jacobstein; Dr. Philip Weltner; William Green; Henry I. Harriman; and Dr. Clark Foreman.

2. That these demonstration projects be located with reference to the principal "problem areas" of the United States, and not on the basis of allocation of funds on the basis of States, the projects to be selected after careful investigation as to individual soundness and merit.

3. That projects be carried on with a maximum of local initiative and responsibility assisted with adequate Federal supervision and guidance and protection for the Federal funds advanced.

4. That projects be organized and administered through local nonprofit or limited-dividend corporations to which Federal funds will be loaned under terms and conditions specified by the Division of Subsistence Homesteads, the latter to have the privilege of selecting one or more members of the board of directors of the local corporation.

5. That where deemed advisable, local advisory committees to the corporation be appointed.

6. That Federal funds should be loaned at a rate of 3 percent and amortized over a period not to exceed 30 years, with privilege of repayment at any time. Deferred initial repayments were suggested in cases where necessary, but such deferment should not be in excess of two years.

7. That Federal loans for the purchase of production equipment and machinery, including livestock, were justified when, in the judgment of the Subsistence Homesteads Division, necessary for the success of the enterprise and when not possible to obtain in any other way.

8. That either lease or sale of plots to individual "homesteaders" be made, depending upon the nature and conditions of each project.

9. That the fullest cooperation be sought of other Federal and State agencies whose resources and services would constitute a contribution to the success of the subsistence-homesteads program.

10. That reasonable local financial aid would be desirable.

11. That adequate local agricultural and other advice and guidance be assured for the "homesteaders."

12. That "homesteaders" be assured of relief if necessary during the present economic crisis. Homestead sites will be picked in those counties where it is assured that urban relief, school, and similar responsibilities will not be unfairly shifted to the homestead areas.

13. That the selection of families, and the land and sites, be made with the greatest care.

14. That, to provide for persons seeking to acquire individual subsistence homesteads in connection with industrial centers, the development of local organizations analogous to holding and loan associations be encouraged.

15. That the Subsistence Homesteads Division carry on a limited amount of necessary research where such can not be provided by other agencies. In this connection the committee emphasizes the importance of the subsistence-homesteads program being consistent with national planning.

The projects of the division will be of three types: Homestead colonies established for industrial workers and located at the outskirts of cities or large towns; rural settlements in which small industries or branches of large industries can be established; and agricultural settlements. The program will deal largely with city dwellers, stranded populations (i.e., those left jobless by the moving of local industries or the exhaustion of natural resources, as for instance coal and copper miners, sawmill workers, etc.), and farmers now working lands too poor to be profitable.

Each subsistence-homestead project will be established in accordance with the industrial and agricultural trends as they relate to the population problems of a given region or State.

Every undertaking will be regarded as experimental. The experiment is to test a method of living that may conserve the best of both urban and rural life, afford greater stability in family living and point the way to a more permanent adjustment for workers in the shorter-hour week and part-time employment.

Arthurdale Community

Two projects are under way. The first was announced on October 12, the Secretary of the Interior stating that the Interior Department had acquired an 1,100-acre farm (Arthurdale) at Reedsville, near Morgantown, W.Va., to be utilized as a colony for some 200 families.

In selecting the families a series of tests was given. Only persons were accepted who had some knowledge of gardening and farm life (such as kinds of seeds, laying ability of poultry, etc.) and who attained a certain level of "education, physical fitness, attitudes and ambitions, and agricultural ability. The homes of those with high ratings were visited, and the woman of the family interviewed. Some women said they wouldn't go back to the farm, and that ruled the family out. In some families, tuberculosis was found, and they couldn't go up into the winter snows, of course." The families finally chosen were mainly of southern European stock, about half being ex-miners, about one fourth former sawmill employees, and about one fourth mountain farmers. Most of them were native West Virginians.

An "advance guard" of about 50 men has already been placed on the land. These men are erecting the houses and doing the preliminary work necessary before the families can be moved there.

The land is to be divided into plots of 5 acres, each having its own cottage, with facilities for gardening, fruit trees, poultry raising, etc., for home consumption. The houses will cost about $2,000 each and will become the property of the colonists under a 20-year purchase plan with low interest rate and small monthly payments.

The settlement will have self-government "with administration to be patterned after the New England town-meeting plan." A school will be established which it is expected will serve as the center of the community life. The present plan is for the establishment of a cooperative store through which the household and farm supplies will be obtained.

The Post Office Department is establishing in the community a factory to manufacture for the Department furniture and other equipment. This factory will give part-time employment to the settlers, their remaining subsistence coming from the homesteads themselves. In addition handicraft industries will be developed in the community.

Although in the West Virginia experiment the land is held by the Interior Department, this will not generally be true in other cases. The plan is that the land shall be acquired through a corporation composed of five public-spirited local persons. Where feasible one of these will be chosen from among the homesteaders. The Subsistence Homesteads Division will retain some supervision, possibly through a resident fiscal agent. Also, while in the Reedsville project the plots are of uniform size, it is planned that in subsequent communities the plots shall vary according to the fertility of the land, the size of the family to be accommodated thereon, etc.

Although the persons chosen for the experiments will be largely from the unemployed who are receiving public relief, the division is not interested in relief as such. Its purpose is to make self-sustaining the persons with whom it is working and to work toward a permanent national program through the redistribution of surplus populations.

Dayton Project

SINCE May 1932 there have been in operation in Dayton, Ohio, certain self-help activities carried on by a group of unemployed under the guidance of the Dayton Council of Social Agencies. This group (which adopted the name, Cooperative Production Units) and its activities were described at length in the Monthly Labor Review for March 1933 (p. 480).

Even as early as the spring of 1933, this organization was seriously considering the establishment of self-sufficing homesteads. The fulfillment of this plan on a small scale has now been made possible through the allotment of $50,000 by the Subsistence Homesteads Division.

A 160-acre tract of land has been acquired near the city, upon which 35 families will be settled, each with a modern house and small plot of ground for the raising of poultry, garden stuff, etc.

The plan contemplates the setting aside of a certain space as common pasture land; there will be a community center for recreation, community gatherings, etc., and a model factory which will furnish part-time employment.

The funds will be disbursed and the whole project will be operated under the supervision of the Ohio Department of Welfare.

Until the factory is established the settlers will be employed at industrial jobs in the city. Surpluses from the crops are to be exchanged for needed goods or sold, the cash to be used to repay the Government loan.

Federal Unemployment Relief Work During September 1933

DURING August 1933, according to the report of the Federal Emergency Relief Administration,[1] 15,150,000 persons, or about 12 percent of the entire population of the United States, received public unemployment relief. Of this number about 430,000 were single persons, while the others were members of family groups. Since March, 1,210,000 families have been taken off the relief rolls, although the actual decrease in number of families is stated to have been somewhat less than this, as the number of families reported for the early months included some duplication. The factors to which the decrease is ascribed principally are improved employment conditions, normal seasonal decreases due to spring and summer farming operations, extensive subsistence-garden programs, and enrollments in the Civilian Conservation Corps.

The amount of funds spent has also decreased, but not so fast as the number of families assisted.

Table 1 shows the Federal funds disbursed each month since May 1933 for the various purposes.

[1] U.S. Federal Emergency Relief Administration. Monthly report, Sept. 1 to Sept. 30, 1933. Washington, 1933.

TABLE 1.—FAMILIES AIDED AND EXPENDITURES INCURRED UNDER FEDERAL RELIEF ACT, MAY TO SEPTEMBER 1933

Month	Number of families given relief	Unemployment relief from Federal funds				
		Matched allotments	Outright grants for—			Total
			General purposes	Transients	Self-help groups[1]	
May	4,252,443	$32,600,019				$32,600,019
June	3,789,126	18,123,283	$808,429			18,931,712
July	[2] 3,450,000	42,592,683	6,129,030			48,721,713
August	[2] 3,350,000	34,792,731	15,025,303		$64,000	49,882,034
September	[3]	10,202,224	15,067,183	$330,000	2,000	25,601,407
Total		138,310,940	37,029,945	330,000	66,000	175,736,885

[1] For specific groups aided see Monthly Labor Review, October 1933 (p. 806).
[2] Partly estimated.
[3] No data.

Since July 1933 an attempt has been made to obtain data showing the amount of relief funds spent for the various types of relief. Complete reporting has not as yet been secured on this point, the information for July covering 64 percent and that for August 62 percent of the total obligations incurred. Table 2 shows for each of these months the amount and percent spent for the different purposes. In addition somewhat over $2,000,000 was given in each month in cash.

TABLE 2.—AMOUNT AND PERCENT OF OBLIGATIONS INCURRED FOR EACH TYPE OF RELIEF IN JULY AND AUGUST 1933

Type of relief	July 1933		August 1933	
	Amount	Percent of total	Amount	Percent of total
Food	$23,149,557	79.5	$18,803,275	81.3
Shelter	2,163,712	7.4	1,416,889	6.1
Clothing	1,311,343	4.5	1,198,672	5.2
Medical care	926,784	3.2	709,367	3.1
Fuel and light	611,881	2.1	423,447	1.8
Household necessaries	132,239	.5	104,440	.5
Other	823,938	2.8	456,921	2.0
Total	29,119,454	100.0	23,113,011	100.0

Of the 100,000,000 pounds of cured pork acquired by the Federal Emergency Relief Administration, 25,000,000 pounds were allotted to the various States for the first quarter year, the amounts being based on the respective average number of families receiving relief in each State during the period April, May, and June. Up to September 30, 1933, the amount ordered shipped totaled 6,755,100, and the States to which sent were as follows:

	Pounds		*Pounds*
Arkansas	492,500	Oklahoma	690,000
District of Columbia	60,000	Rhode Island	120,000
Louisiana	510,000	Tennessee	420,000
Michigan	1,110,000	Texas	960,000
Mississippi	502,600	Utah	180,000
Montana	150,000		
Ohio	1,560,000	Total	6,755,100

Creation of Federal Civil Works Administration

ON NOVEMBER 9, 1933, the President created the Civil Works Administration and appointed Harry L. Hopkins, Federal Emergency Relief Administrator, to act as Administrator of the new agency.

The purpose of the Civil Works Administration is to provide immediately "regular work at regular wages" for able-bodied unemployed persons now on work relief.

To this end the Administrator will finance local civil works projects. In order to insure speed, local relief administrations will be designated as civil works administrations and will be given authority to pass upon projects submitted for approval, up to a certain amount. Beyond that sum the matter will be referred to the State civil works administration. Under this procedure, only in unusual cases will reference have to be made to Washington for decision.

The maximum money limits on projects have not yet been set. Regulations to guide the local and State administrations are to be announced shortly.

Handicrafts to Combat Unemployment in Germany[1]

HANDICRAFT Week, sponsored by the German Government, was celebrated October 15–22, 1933.

In Stuttgart the week was opened with a large parade of civilians, with storm-troop units and numerous floats. The parade was followed by a demonstration addressed by officials of the Württemberg State Government, all of whom stressed the importance of the handicraft branch of industry in the campaign against unemployment. The speakers commented on the efficiency of the German handicraft worker and the excellence of the work turned out by craftsmen. It was pointed out that the nature of the industry required that the majority of the work be done by hand thus furnishing employment to the German workmen. In supporting this movement to develop handicrafts in Germany, appeals for support were made to German purchasers, principally housewives. They were requested, when purchasing, to demand products produced by German handicrafts and to support the building craft as far as possible in regard to new construction and repairs.

Propaganda of this type was reported also to have been undertaken in other sections, primarily in the urban districts where there is a concentration of handicraft units.

[1] Report by L. Dominian, American Consul General at Stuttgart, Oct. 17, 1933

NATIONAL RECOVERY ADMINISTRATION

Summary of Permanent Codes Adopted Under National Industrial Recovery Act Up to November 8, 1933

IN THE following tabular analysis the principal labor provisions of codes are recorded as adopted under the National Industrial Recovery Act up to November 8, 1933 (with the exception of the code for the cleaning and dyeing industry).

In previous issues of the Monthly Labor Review (August to November 1933) a text statement covering the labor provisions of each code was printed as it became available. Owing to the space requirements it has been found impracticable to continue presenting such a detailed analysis of each code. The Bureau of Labor Statistics will continue to prepare these analyses, however, and will be glad to furnish copies on request.

The object of the various sections on labor included in the following tabulation is not to show exhaustively what the provisions are as to wages, hours, rates of overtime pay, etc., but rather to emphasize the major provisions, i.e., those that affect the great bulk of employees. For example, under the hours provision in every instance the maximum hours permitted are shown for the industry as a whole or for factory workers, office workers, or the principal groups in service industries, where the codes provide different schedules of hours. There has been no attempt to enumerate the excepted classes of which one or more are allowed for in practically all codes, such as, under the hours provisions, executives, and persons in managerial positions earning over a stated amount (usually $35), specially skilled workers, maintenance and repair crews, and workers engaged in continuous processes where spoilage of products would result from strict adherence to the hours as established. Similarly the existence of specific classes exempted from the minimum-wage provisions is not indicated here.

There is nothing static in the code provisions as originally approved by the President of the United States and as printed here. In some instances there are specific code provisions looking toward modification on the basis of experience and investigation. For trade or service industries there has already been an Executive order [1] in connection with the retail-trade code under date of October 23, 1933, which exempts from code provisions units in the trade or service industries when located in towns of less than 2,500 population and employing 5 persons or fewer. This order has been interpreted as not including motor-vehicle retailers.

It must be remembered, therefore, that to evaluate fully code provisions in any instance the entire code and any modifying orders must be consulted, the general purpose of this summary being merely to give in readily usable form the general standards as laid down by the various industries under the National Industrial Recovery Act.

[1] See Monthly Labor Review, November 1933, p. 1066.

TABULAR ANALYSIS OF LABOR PROVISIONS IN CODES ADOPTED UNDER NATIONAL INDUSTRIAL RECOVERY ACT UP TO NOVEMBER 8, 1933

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Advertising specialty manufacturing (Nov. 13).	30 cents per hour, females; 35 cents per hour, males.	40 per week (in peak periods 48 in 1 week, 520 during 13-week consecutive period).	1½ regular rate after 40 hours.	Under 16.
Artificial flower and feather (Sept. 25).	$15 per week	40 per week, 8 per day (of 24 hours)	No overtime allowed	Do.
Asbestos (Nov. 13)	32½ cents per hour for females, 37½ cents per hour for males, South; 35 cents per hour for females, 40 cents per hour for males, North; factory. $14–$15 per week according to population, office, etc.	40 per week, 8 per day (in peak periods 48 per week during 6 weeks in 6-month period), factory. 40 per week averaged over 6 months (maximum 48 hours in 1 week), office.	1½ regular rate	Under 16, general. Under 18, hazardous occupations.
Asphalt shingle and roofing (Nov. 20).	37½ cents per hour, South; 40 cents per hour, North; 45 cents per hour, Pacific coast, general. $15 per week, office. 35 cents per hour, females other than clerks.	40 per week, 8 per day (of 24 hours), 7-day week (in peak periods 40 per week averaged over 30 days), general. 56 per week, 7-day week, watchmen. 44 per week, 8 per day, firemen.	1½ regular rate, general. 1½ regular rate, emergency repair work.	Under 16, general. Under 18, manufacturing operations.
Automatic sprinkler (Oct. 19).	43¾ cents per hour, North; 37½ cents per hour, South, construction. 40 cents per hour, manufacturing. $14–$15 per week, according to population, clerical.	40 per week, general. 56 per week, watchmen.	No provision	Under 16.
Automobile manufacturing (Sept. 5).	40–43 cents per hour, according to population, factory. $14–$15 per week, according to population, office.	35 per week (average) general. 42 per week, (average) supervisory staff and preparation workers. 40 per week (maximum 48 in 1 week), for term of code, office. 6 days per week.	do	Do.
Automotive parts and equipment manufacturing (Nov. 18).	35 cents per hour, females; 40 cents per hour, males, processing. $15 per week, others.	40 per week averaged over 6 months (maximum 48 hours and 6 days in 1 week), processing. 42 per week averaged over 1 year, preparation and care of plant. 40 per week averaged over 6 months (maximum 48 hours and 6 days in 1 week), office.	do	Do.
Bankers (Oct. 16)	Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population.	40 per week averaged over 13 weeks	do	Do.
Bituminous-coal mining (Oct. 2).	30–60¼ cents per hour, outside common labor; 42½–70⅜ cents per hour, inside skilled labor, according to locality.	40 per week, 8 per day	do	Under 16, general. Under 17, inside of mine and in hazardous occupations outside.
Boiler manufacturing (Oct. 16).	34 cents per hour, South; 40 cents per hour, elsewhere, manufacturing. $15 per week, others.	40 per week, 8 per day, 5 consecutive days	1½ regular rate, shop work. Double time, repair, construction, etc., work.	Under 16.
Boot and shoe manufacturing (Oct. 13).	30–32½ cents per hour for females, 35–37½ cents per hour for males, according to population.	40 per week (45 permitted during 8 weeks in 6 months).	1½ regular rate	Do.

Buff and polishing wheel (Nov. 4).	40 cents per hour, general. 32½ cents per hour, light work, factory. $15 per week, office. $13 per week, watchmen.	40 per week averaged over 6 months, 8 per day (in emergency 48 during 6 weeks in 6-month period), factory. 40 per week averaged over 2 months (maximum 48 in 1 week), office.	1½ regular rate	Under 16, general. Under 18, hazardous occupations.
Buffing and polishing composition (Nov. 4).	do	do	do	Do.
Builders' supplies trade (Oct. 13).	35–50 cents per hour, according to geograhpical areas, decreased by 5 and 10 cents according to population.	40 per week, general. 44 per week, yard foremen, truck drivers, etc. 48 per week in small towns, where not more than 2 employed.	No general provision. 1½ regular rate after 44 hours, yard foremen, etc. 1½ regular rate after 48 hours, clerical and office and employees in small towns.	Under 18.
Business furniture, storage equipment, and filing supply (Nov. 14).	35 cents per hour, visible filing, and 40 cents per hour, steel office furniture, females; 40 cents per hour, males, factory. $14–$15 per week, according to population, office.	40 per week, 8 per day (in peak periods 48 per week, 10 per day, during 6 weeks in 6 months), factory. 40 per week (in peak periods 48 per week during 6 weeks in 6 months), office.	1½ regular rate after 9 hours.	Under 16, general. Under 18, hazardous occupations.
Canning and packing machinery (Nov. 11).	40 cents per hour,[1] productive. $14–$15 per week, according to population, office.	40 per week averaged over 6 months (tolerance of 20 percent in emergencies).	No provision	Under 16, general. Under 18, power-driven, etc., machinery.
Cap and closure (Oct. 31)	40 cents per hour, factory.[2] $14–$15 per week, clerical, according to population.	40 per week averaged over 6 months, general. 40 per week averaged over 1 month, office. (Maximum 48 in 1 week.)	1½ regular rate after 40 hours.	Under 16, general. Under 18, hazardous occupations.
Cast-iron soil pipe (Sept. 11).	32 cents per hour, South; 40 cents per hour, elsewhere.	27 per week, 8 per day, general. 40 per week, 8 per day, clerks, etc. Operation limited to 1 shift.	No provision	Under 16, general. Under 18, foundry operations.
Coat and suit (Aug. 7)	$14 per week, nonmanufacturing. Manufacturing: East, $0.60 per hour for skirt basters and finishers to $1.30 per hour for machine pressers. West, males, $0.65 per hour for coat and dress part pressers to $0.85 per hour for coat and dress operators; females, $0.53 per hour for coat and skirt button sewers and finishers' helpers to $0.75 per hour for coat and dress operators.	35 per week, 5-day week, manufacturing. 40 per week, nonmanufacturing. Operation limited to 1 shift.	No overtime allowed	Under 16, nonmanufacturing. Under 18, manufacturing.
Compressed air (Oct. 22)	40 cents per hour, productive.[3] $15 per week, others.	40 per week, 8 per day (maximum 48 per week during 6 weeks in 6-month period).	1½ regular rate after 8 hours.	Under 16.
Copper and brass mill products (Nov. 13).	35 cents per hour, females; 40 cents per hour, males.[4]	40 per week, 8 per day, general. 48 per week, watchmen and power-house employees.	1½ regular rate	Under 18, general. Under 16, clerical, messenger, etc.
Corset and brassiere (Aug. 28).	$14 per week, general. $25 per week, cutters	40 per week, 5-day week	No provision	Under 16.
Cotton-textile and rayon weaving (July 17, 25).	$12 per week, South; $13 per week, North	40 per week. Operation limited to 2 shifts	No general provision. 1½ regular rate, repair-shop crews, etc.	Do.

[a] Unless rate was lower on July 15, 1929, but in no case less than 87½ percent of the minimum rate in the North and 80 percent in the South.
[1] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 32 cents an hour.
[2] Unless rate was lower on July 15, 1929, but in no case less than 30 cents an hour.
[3] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 35 cents an hour.
[4] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 35 cents an hour for males and 30 cents for females.

TABULAR ANALYSIS OF LABOR PROVISIONS IN CODES ADOPTED UNDER NATIONAL INDUSTRIAL RECOVERY ACT UP TO NOVEMBER 8, 1933—Continued

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Crown manufacturing (Nov. 12).	35 cents per hour, females; 40 cents per hour, males, factory. $14–$15 per week, according to population, office.	40 per week, averaged over 6 months (maximum 48 hours in 1 week, factory. 40 per week (48 permitted during 6 weeks in 6-month period), office. 5-day week insofar as possible. 54 per week, watchmen, etc.	1½ regular rate	Under 16, general. Under 18, hazardous occupations.
Dress (Nov. 13)	$15 per week for cleaners and pinkers, $45 per week for cutters, higher-priced garments, city of New York, and lower-priced garments, eastern area; $15 per week for cleaners and pinkers, $46 per week for cutters, lower-priced garments, city of New York; 90 percent of New York rates for eastern metropolitan area and for higher-priced garments in eastern area; 85 percent of New York rates for western area. $14 per week, all other employees.	35 per week (extra hours by special permission during 6 weeks in any season), 5-day week, manufacturing. 40 per week (extra hours by special permission during 6 weeks in any season), others. Operation limited to 1 shift.	1½ regular rate	Under 16.
Electric storage and wet primary battery (Oct. 16)	40 cents per hour, factory.[5] $15 per week, others.	40 per week, 8 per day, averaged over 1 year (maximum 48 in 1 week), factory. 40 per week averaged over 1 year, others.	No general provision. 1½ regular rate, repair work, etc.	Under 16, general. Under 18, factory work.
Electrical manufacturing (Aug. 15).	40 cents per hour, processing.[1] $15 per week, others.	36 per week, processing. 40 per week, others.	No provision	Under 16.
Fabricated metal products manufacturing and metal finishing and metal coating industry (Nov. 12).	30 cents per hour for females, 35 cents per hour for males, South;[6] 35 cents per hour for females, 40 cents per hour for males, North, processing. Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population, others.	40 per week (in peak periods 48, but extra hours not to exceed 32 in 6 months), processing. 48 per week, others.	1½ regular rate after 32 extra hours, processing. 1½ regular rate after 48 hours, others.	Under 16, general. Under 18, hazardous occupations.
Farm equipment (Oct. 23)	30, 35, or 40 cents per hour, according to zone, factory. $12–$15, according to population, office.	40 per week averaged over 6 months	No provision	Under 16.
Fertilizer (Nov. 10)	20 cents per hour, Puerto Rico; 25 cents per hour, southern area; 35 cents per hour, northern and midwestern areas; 40 cents per hour, Pacific coast.	40 per week, 8 per day, 6-day week, general. 40 per week averaged over 4 months, office.	1½ regular rate after 8 hours, all except office workers.	Do.
Fire-extinguishing appliance manufacturing (Nov. 4).	35 cents per hour, general. 40 cents per hour, factory.	35 per week, 8 per day (of 24 hours), averaged over 3 months (maximum 40 in 1 week), factory. 40 per week, 8 per day (of 24 hours), others.	No general provision. 1½ regular rate, emergency repair, etc.	Under 16, general. Under 18, hazardous occupations.
Fishing tackle (Aug. 29)	35 cents per hour	40 per week averaged over 6 months, office. 40 per week, 8 per day, others.	No provision	Under 16.

Floor and wall clay tile manufacturing (Nov. 13).	32½ cents per hour, females; 40 cents per hour, males.	40 per week averaged over 6 months (maximum 48 in 1 week), general. 42 per week averaged over 6 months (maximum 48 in 1 week), engineers, etc. 96 in 2 weeks, watchmen. 40 per week averaged over 1 month (maximum 48 in 1 week), office, etc. 12 days in 14.	No provision	Under 16, general. Under 18, hazardous occupations.
Funeral supply (Nov. 14)	30 cents per hour, females; 30 cents per hour, South, and 40 cents per hour, North, males.	40 per week (tolerance of 5 percent as long as 2-week average remains 40), general. 42 per week averaged over 2 weeks, watchmen. 46 per week, engineers, etc. Operation limited to 2 shifts.	No general provision. 1½ regular hourly rate after 40 hours, engineers, etc.	Do.
Gas cock (Nov. 10)	40 cents per hour, general. 33 cents per hour, light work, factory. $15 per week, office.	40 per week, 8 per day, factory. 40 per week, clerical. 48 per week, watchmen.	No general provision. 1½ regular rate after 8 hours, emergency maintenance and repair work.	Do.
Gasoline-pump manufacturing (Sept. 18).	40 cents per hour	40 per week	No provision	Under 16, general. Under 18, metal-working machines.
Glass container (Oct. 13)	do.[2]	40 per week averaged over 6 months (maximum 48 in 1 week), factory. 40 per week averaged over 1 month (maximum 48 in 1 week), office or branch employees.	No general provision. 1½ regular rate, certain employees earning over $35 per week.	Under 16, general. Under 18, hazardous manufacturing processes.
Hair and jute felt (Nov. 13)	35 cents per hour	40 per week	1½ regular rate	Under 16.
Handkerchief (Oct. 19)	$12 per week, South; $13 per week, North	40 per week, 8 per day (of 24 hours), general. 45 per week, repair-shop crews, etc. 40 per week, 8 per day (maximum 48 per week during 16 weeks in any year), shipping crews. Operation limited to 1 shift.	No general provision. Regular rate after 40 hours, shipping crews. Regular rate, emergency work, repair-shop crews, etc.	Do.
Heat exchange (Oct. 22)	40 cents per hour, productive.[3] $15 per week, others.	40 per week, 8 per day (in emergency 48 during any 6 weeks in 6-month period).	1½ regular rate after 8 hours.	Do.
Hosiery (Sept. 4)	$12 per week, general, $15.50 per week for boarders, $16.75–$24.75 per week for leggers, footers, South; $13 per week, general, $17 per week for boarders, $18.50–$27.50 per week for leggers, footers, North.	40 per week, 8 per day, 5-day week, productive operations. 40 per week averaged over 6 months, office workers. Operation limited to 2 shifts.	No provision	Do.
Ice (Oct. 16)	23 cents per hour, South; 32½ cents per hour elsewhere.	40 per week, 8 per day, office and clerical. 48 per week averaged over 12 months (maximum 56 in 1 week), others.	do	Do.
Industrial supplies, machinery, and distributors trade (Nov. 2).	Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population.	40 per week averaged over 6 months, 8 per day, 6-day week (maximum 48 per week during 3 weeks in 6-month period).	1½ regular rate, maintenance, shipping, etc.	Under 16, general. Under 18, hazardous occupations.
Iron and steel (Aug. 19)	25–40 cents per hour, common labor	40 per week averaged over 6 months, 6-day week (maximum 48 in 1 week).	No provision made	Under 16.
Knitting, braiding, and wire covering machine (Oct. 13).	$14 per week, clerical and office employees. 40 cents per hour, others.	40 per week averaged over 6 months (maximum 48 per week during 8 weeks in 6-month period).	1½ regular rate after 8 hours.	Under 16, general. Under 18, hazardous manufacturing processes.

[1] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 32 cents an hour.
[2] Unless rate was lower on July 15, 1929, but in no case less than 30 cents an hour.
[3] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 35 cents an hour.
[5] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 90 percent of minimum.
[6] Unless rate was lower on July 15, 1929, but in no case less than rates proposed in code filed July 10, 1933.

TABULAR ANALYSIS OF LABOR PROVISIONS IN CODES ADOPTED UNDER NATIONAL INDUSTRIAL RECOVERY ACT UP TO NOVEMBER 8, 1933—Continued

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Lace manufacturing (Aug. 28).	$13 per week	40 per week. Operation limited to 2 shifts	No general provision. 1½ regular rate, engineers, electricians, etc.	Under 16.
Ladder manufacturing (Nov. 18).	35 cents per hour, general. $15 per week, office.	40 per week, 8 per day (of 24 hours) (maximum 48 per week, or 6 days per week, during 8 weeks in 6-month period).	1⅓ regular rate after 8 hours.	Under 16, general. Under 18, hazardous occupations.
Laundry and dry-cleaning machinery manufacturing (Oct. 14).	40 cents per hour, labor incident to production. $14 per week, others.	36 per week averaged over 6 months (in peak periods extra hours not to exceed 72 in 6 months), production employees. 40 per week averaged over 6 months, others.	1½ regular rate after 8 hours.	Under 16.
Leather (Sept. 18)	32½ cents per hour, males and females, South; 35 cents per hour for females, 40 cents per hour for males, North.	40 per week averaged over 26 weeks, 8 per day	1⅓ regular rate	Do.
Leather and woolen knit glove (Nov. 13).	32½ cents per hour	44 per week up to Dec. 1, 1933; 40 per week and 8 per day thereafter.	No provision	Do.
Legitimate theatrical (Aug. 26).	30 cents per hour, ushers. $30 per week, chorus, moving-picture machine operators, and musicians. $25–50 per week, according to experience and price of admission, legitimate actors. $12–$40 per week, according to occupation and population, stock actors.	35 per week, ushers. 40 per week, others	Regular rate where specified.	Under 16 (except by special permission).
Lime (Oct. 13)	30 cents per hour in South, 37½ cents per hour in North, general. $12–$15 per week, according to population, clerical.	40 per week averaged over 6 months, 8 per day	1½ regular rate after 8 hours.	Under 16.
Linoleum and felt base manufacturing (Oct. 2).	35 cents per hour, females; 40 cents per hour, males, general. $14 per week, office.	40 per week averaged over 26 weeks (maximum 48 in 1 week except for shipping crews).	No provision	Do.
Liquefied gas (Nov. 8)	40 cents per hour	40 per week (in peak periods not over 346 hours in 2 months, maximum 48 hours in 1 week).	do	Under 16, office and sales. Under 18, others.
Luggage and fancy leather goods (Oct. 13).	30 cents per hour for females, 32½ cents per hour for males, South; 32½ cents per hour for females, 35 cents per hour for males, North.	40 per week, 8 per day, general. 48 per week, 8 per day, engineers, etc.	No general provision. 1⅓ regular rate after 48 hours, engineers, etc. 1⅓ regular rate after 40 hours, clerical and office.	Under 16.
Lumber and timber products (Aug. 22, 29).	40 cents per hour [7] piece or contract work. 23–50 cents per hour, others.	40 per week	No general provision. 1½ regular rate, for not more than 10 percent of watchmen, etc.	Under 18. Under 16, wooden package division.
Machine tool and forging machinery (Nov. 19).	40 cents per hour,[3] production. $15 per week, others.	40 per week (in peak periods 48 per week during 6 weeks in 6-month period).	1½ regular rate after 8 hours.	Under 16, general. Under 18, hazardous occupations.

Marking devices (Oct. 30)	32½ cents per hour	40 per week averaged over 13 weeks, 8 per day, general. 42 per week, 8 per day, watchmen.	1½ regular rate after 8 hours.	Do.
Men's clothing (Sept. 11)	37 cents per hour in South, 40 cents per hour in North, manufacturing. $13 per week in South, $14 per week in North, nonmanufacturing. 75 cents per hour, off-pressers. $1 per hour, cutters.	36 per week, 8 per day, general. 40 per week, averaged over year, repair shop crews, etc. Operation limited to 1 shift.	No provision	Under 16.
Men's garter, suspender, and belt manufacturing (Nov. 19).	31½ cents per hour in South, 35 cents per hour in North, general. 70 cents per hour, cutters.	40 per week, factory. 40 per week (maximum 44 per week during 16 weeks in year), office. 44 per week, shipping clerks, repair crews, etc.	No general provision. Regular rate, stock clerks, office, etc.	Under 16, general. Under 18, hazardous occupations.
Millinery and dress trimming braid and textile (Nov. 10).	35 cents per hour, New York City; 32½ cents per hour elsewhere.	40 per week, 8 per day (of 24 hours)	1½ regular rate, engineers, repair crews, etc.	Under 16.
Motion-picture laboratory (Sept. 17).	50 cents per hour, general. $12–$15 per week, according to population, others.	40 per week, 8 per day	1½ regular rate	Do.
Motor bus (Nov 13)	$12–$15 per week, according to population	40 per week averaged over 4 weeks, clerical. 48 per week averaged over 6 weeks (maximum 54 in 1 week), garage, service, etc. 48 per week averaged over 6 weeks (maximum 54 in 1 week for 9 months and 48 per week with allowance of 6 hours per week for 3 months), bus operators and ticket agents. 56 per week, watchmen.	No provision	Under 16, general. Under 21, bus drivers.
Motor fire apparatus manufacturing (Nov. 9).	40 cents per hour, factory. $14 per week, office.	35 per week averaged over 3 months (maximum 48 hours and 6 days in 1 week), tolerance of 3 percent, factory. 40 per week, averaged over 3 months (maximum 48 in 1 week), others.	1½ regular rate, maintenance, etc.	Under 16, general. Under 18, hazardous occupations.
Motor-vehicle retailing (Oct. 3).	$13–$15 per week, according to population	44 per week	No provision	Under 16.
Mutual savings banks (Oct. 23).	Range from present wage plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population.	40 per week averaged over 13 consecutive weeks. 48 per week during 12 weeks in 1 year.	do	Do.
Nottingham lace curtains (Nov. 13).	$13 per week	40 per week, factory. 40 per week, 8 per day, 5-day week, weavers. 40 per week averaged over 6 weeks (maximum 48 in 1 week), office. Operation limited to 2 shifts.	No general provision. 1⅓ regular rate after 44 hours, repair-shop crews, etc.	Do.
Novelty curtain draperies, bedspreads, and novelty pillows (Nov. 11).	32½ cents per hour	40 per week, 8 per day (of 24 hours), general. 40 per week averaged over 9 weeks (maximum 48 in 1 week), office. Operation limited to 1 shift.	1⅓ regular rate, emergency maintenance or repair.	Do.
Office equipment manufacturing (Nov. 13).	35 cents per hour for females, 40 cents per hour for males,[3] factory. $12–$15 per week, according to population, others.	40 per week averaged over 10 weeks (in peak periods 48 per week during 8 weeks in 6 months), factory. 40 per week (peak periods 48 during 6 weeks in 6 months), others.	No provision	Under 16, general. Under 18, machine operators.

[3] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 35 cents an hour.
[7] Unless rate was lower on July 15, 1929, in which case rate shall be not less than the rate on that date, plus (in case of rates from 20 to 29 cents) from 1½ to 15 percent.

TABULAR ANALYSIS OF LABOR PROVISIONS IN CODES ADOPTED UNDER NATIONAL INDUSTRIAL RECOVERY ACT UP TO NOVEMBER 8, 1933—Continued

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Oil burner (Sept. 23)	45 cents per hour, factory. $15 per week, office, etc.	36 per week average (32 per week January-June, maximum 40 in 1 week; 40 per week July-December, maximum 48 in 1 week), manufacturing. 38 per week average (32 per week March-August, maximum 40 in 1 week; 48 per week September-November; 40 per week December-February, maximum 48 in 1 week), installing and servicing. 40 per week averaged over 6 months (maximum 48 in 1 week), office, etc.	No provision	Under 16.
Optical manufacturing (Oct. 16).	32½ cents per hour for 20 percent of employees, 40 cents per hour for 75 percent of employees.	40 per week (in peak periods 48 per week in 16 consecutive weeks, maximum 2,080 per year).	No general provision. 1½ regular rate, emergency crews, etc., paid hourly.	Do.
Packaging machinery industry and trade (Nov. 11).	40 cents per hour, productive workers. $14–$15 per week, according to population, others.	40 per week, 8 per day (of 24 hours) (in peak periods 48 during 8 weeks in 6-month period), productive workers. 40 per week averaged over month (maximum 48 in 1 week), office, etc. 56 per week, watchmen.	1½ regular rate after 8 hours per day or 40 hours per week, productive workers, emergency repair, etc.	Under 16, general. Under 18, hazardous occupations.
Paint, varnish, and lacquer manufacturing (Nov. 15).	35 cents per hour for females, 40 cents per hour for males, factory. $14–$15 per week, according to population, office. 90 percent of above rates in South.	40 per week, 8 per day (45 per week and 9 per day, during 6 weeks in 26-week period), factory. 40 per week averaged over 20 weeks (48 per week during 6 weeks in 26-week period), office, delivery, etc.	No general provision. 1½ regular rate, maintenance, etc.	Under 16.
Paperboard (Nov. 20)	33 cents per hour for females and 38 cents per hour for males in North; 30 cents per hour for females and 35 cents per hour for males in Central; 30 cents per hour in South, factory.[5] $12–$15 per week, according to population, others.	56 per week, 8 per day, watchmen. 48 per week, 10 per day (168 hours in 4 weeks), chauffeurs, truckmen, etc. 40 per week, 8 per day, averaged over 13 weeks, tour workers. 40 per week averaged over 13 weeks (maximum 48 in 1 week), factory. 40 per week averaged over 1 year (maximum 48 in 13 weeks), others.	1½ regular rate after 8 hours, factory workers.	Under 16, general. Under 18, hazardous occupations.
Petroleum (Sept. 2)	45–52 cents per hour, according to geographical divisions, drilling, refining, etc. 40–47 cents per hour, according to geographical divisions, marketing. $12–$15 per week, according to population, service stations.	80 in 2 weeks (maximum 48 in 1 week), office. 40 per week, 72 in 2 weeks, 16 in 2 days, others, driillng, refining, etc. 40 per week, marketing. 48 per week, service stations.	No provision	Under 16.
Petroleum equipment (Nov. 13).	35 cents per hour in South, 40 cents per hour in North, hourly workers. $15 per week, others.	40 per week averaged over 3 months (maximum 48 in 1 week), 6 days per week, general. 56 per week, watchmen.	1½ regular rate after 8 hours per day or 40 hours per week, hourly workers.	Under 16, general. Under 18, hazardous occupations.
Photographic manufacturing (Aug. 29).	35 cents per hour	40 per week averaged over 3 months (in emergency or peak period 144 hours over maximum, per year).	No general provision. 1½ regular rate, repair shop crews, etc.	Under 16.

Piano (Nov. 13)	40 cents per hour, general. 32 cents per hour, females on light work, factory. $14 per week, others.	40 per week, 8 per day, general factory. 48 per week, during 6 weeks per year, finishers, factory. 40 per week averaged over 3 months (maximum 48 per week and 8 per day, average 520 hours in 13 weeks), office.	1½ regular rate, factory workers.	Under 16, general. Under 18, hazardous occupations.
Plumbago crucible (Oct. 30).	40 cents per hour, general. $15 per week, accounting, clerical, etc.	40 per week, general. 48 per week (maximum 48 in 1 week), kiln burners.	1½ regular rate after 8 hours.	Do.
Printer's rollers (Nov. 18)	45 cents per hour, factory. $15 per week, office.	40 per week, general (maximum 48 per week during 12 weeks in 6-month period for specialists). 56 per week, 6-day week, watchmen.	1½ regular rate after 8 hours per day and 40 hours per week, specialists and emergency repair crews, etc.	Do.
Pump manufacturing (Oct. 22).	40 cents per hour, productive workers.[3] $15 per week, others.	40 per week (maximum 48 during 6 weeks in 6-month period), 8 per day.	1⅓ regular rate after 8 hours.	Under 16.
Rayon and synthetic yarn production (Sept. 9).	$13 per week	40 per week averaged over 4 weeks	No provision	Do.
Retail drug trade (Oct. 30)	$10–$16 per week, according to population, North. $9–$15 per week, according to population, South.	40 per week, 8 per day, 6-day week; or 44 per week, 9 per day, 6-day week; or 48 per week, 10 per day, 6-day week; or 56 per week, 10 per day, 13 days in 2 weeks, according to store hours.	No general provision. 1⅓ regular rate after 6 hours per week over maximum, maintenance, etc.	Under 16 (except 3 hours per day, 6 days per week, or one 8-hour day for persons 14 and 15).
Retail lumber, lumber products, building materials and building specialties (Oct. 13).	35–50 cents per hour, according to geographical area.	40 per week, general. 44 per week, yard foremen, truckmen, etc. 48 per week in small towns where not more than 2 employed.	No general provision. 1½ regular rate, yard foremen, etc.	Under 16, general. Under 18, handling lumber, etc.
Retail trade (Oct. 30)	$10–$15 per week, according to population, North. $9–$14 per week, according to population, South.	40 per week, 8 per day, 6-day week; or 44 per week, 9 per day, 6-day week; or 48 per week, 10 per day, 6-day week, according to store hours.	No general provision. 1⅓ regular rate after 6 hours per week over maximum, maintenance, etc.	Under 16 (except 3 hours per day, 6 days per week, or one 8-hour day for persons 14 and 15).
Road machinery manufacturing (Nov. 20)	Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population, office. 40 cents per hour, others.	40 per week averaged over 6 months (maximum 44 in 1 week), office. 40 per week average, 8 per day (in peak periods 44 during any 8 weeks in 6 months), others.	1½ regular rate	Under 16, general. Under 18, hazardous occupations.
Rock crusher manufacturing (Nov. 1).	40 cents per hour, general. Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $15 per week, according to population, clerical.	40 per week average, 8 per day (in peak periods 44 per week during 8 weeks in 6 months), general. 40 per week averaged over 6 months (maximum 44 in 1 week), clerical.	do	Do.
Saddlery (Oct. 13)	30 cents per hour for females (making pads), and 32½ cents per hour for males, in South; 32½ cents per hour for females (making pads), and 35 cents per hour for males, elsewhere.	40 per week averaged over 4-month period, 8 per day (of 24 hours) general. 40 per week averaged over 26 weeks, 8 per day, office.	1⅓ regular rate	Under 16.
Salt production (Sept. 17)	25 cents per hour for females, and 30 cents per hour for males, in South; 32 cents per hour for females, and 35 cents per hour for males, in North.	42 per week for processing and 40 per week averaged over 6 months, for others (maximum 48 in 1 week), 6-day week, North. 48 per week averaged over 6 months (maximum 54 in 1 week), 6-day week, South and California.	No provision	Under 16, general. Under 21, below ground.

[3] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 35 cents an hour.
[4] Unless rate for same class of labor was lower on July 15, 1929, but in no case less than 90 percent of minimum.

TABULAR ANALYSIS OF LABOR PROVISIONS IN CODES ADOPTED UNDER NATIONAL INDUSTRIAL RECOVERY ACT UP TO NOVEMBER 8, 1933—Continued

Industry and date effective	Minimum wages (excluding apprentices and learners)	Maximum hours	Provisions for overtime pay	Minors of specified age excluded from employment
Shipbuilding and ship repairing (Aug. 5).	35 cents per hour, South; 45 cents per hour, North.	32 per week, 8 per day, U.S. construction. 36 per week averaged over 6 months (maximum 40 in 1 week), 8 per day, commercial.	1½ regular rate after 8 hours.	Under 16.
Shovel, dragline and crane (Nov. 20).	40 cents per hour (35 cents per hour for 10 percent engaged in nonproductive work), general. $14–15 per week, according to population, office.	40 per week (maximum 44 per week during 8 weeks in 6-month period), general. 44 per week (maximum 48 per week during 8 weeks in 6-month period), hourly employees in maintenance. 56 per week, watchmen and janitors. 40 per week (maximum 48 per week during 8 weeks in 6-month period, office. 44 per week, 1 employee in each district sales office. 48 per week, 1 employee in each field service station.	No general provision. 1½ regular rate after. 8 hours per day and 40 hours per week, hourly employees. 1½ regular rate after 9 hours per day and 44 hours per week, hourly employees on maintenance work.	Under 16, office work. Under 18, others.
Silk textile (Oct. 16)	$12 per week, South; $13 per week, North	40 per week, productive employees. 40 per week or 480 in any 12 weeks (maximum 48 in 1 week), others. Operation limited to 2 shifts.	1⅓ regular rate after 40 hours, repair-shop crews, etc.	Under 16.
Soap and glycerine manufacturing (Nov. 13).	35 cents per hour in South, 40 cents per hour in North, general. 30 cents per hour, in South, 32½ cents per hour in North, light tasks. $14–15, according to population, office and service vehicles.	40 per week averaged over 6 months, factory. 40 per week averaged over 6 months (maximum 48 in 1 week), office. 44 per week averaged over 6 months (maximum 48 in 1 week), service vehicles, etc.	1⅓ regular rate	Do.
Steel casting (Nov. 13)	25–40 cents per hour, by districts, for common labor, factory. $15 per week, office.	40 per week averaged over 8 weeks (maximum 48 in 1 week), 6-day week, factory. 40 per week, office. 8 per day insofar as possible.	No provision	Under 16, general. Under 18, hazardous occupations.
Steel tubular and fire-box boiler (Nov. 6).	34 cents per hour in South, 40 cents per hour in North, labor operations. $15 per week, others.	40 per week, 8 per day, 5 consecutive days	1½ regular rate, emergency production, repair, etc. Twice regular rate for outside repair, etc.	Under 16.
Stock exchange firms (Nov. 13).	Range from present rate plus 20 percent (but wage not to exceed $12 per week) to $16 per week, according to population.	40 per week (in emergency 44 per week averaged over 4 months).	1⅓ regular rate after average of 44 hours per week in 4 months, or over 48 hours in 1 week.	Do.
Terra cotta (Nov. 13)	30 cents per hour in South, 35 cents per hour in North, general. $15 per week, watchmen.	40 per week	No general provision. 1⅓ regular rate, clerical, estimators, etc.	Under 16, general. Under 18, hazardous occupations.
Textile bag (Oct. 2)	$12 per week, South; $13 per week, North	40 per week, 8 per day (of 24 hours), (in peak periods 48 per week during 8 weeks in 1 year, maximum 48 in 1 week). Operation limited to 2 shifts.	No general provision. 1⅓ regular rate for repair-shop crews, etc.	Under 16.
Textile machinery manufacturing (Oct. 16).	$14 per week, clerical. 35 cents per hour, others.	40 per week, 8 per day, 6-day week (in peak periods 48 per week during 8 weeks in 6 months).	1½ regular rate after 8 hours.	Under 16, general. Under 18, hazardous occupations.

Throwing (Oct. 16)	30 cents per hour, South; 32½ cents per hour, North.	40 per week, productive workers. 40 per week (44 per week, emergency), nonproductive. Operation limited to 2 shifts.	No general provision. 1½ regular rate, nonproductive emergency work after 44 hours.	Under 16.
Toys and playthings (Nov. 13).	30 cents per hour	40 per week (in peak periods 48, but extra hours not to exceed 96 in 1 year). 42 averaged over 2 weeks, watchmen.	1½ regular rate	Under 16, general. Under 18, hazardous occupations.
Transit (Oct. 2)	$12–$15 per week, according to population. 40 cents, hourly employees.[2]	40 per week, office employees. 44 per week, shop employees. 48 per week averaged over 6 months, car-house and garage employees, trainmen, bus operators, etc. (Maximum 54 in 1 week.)	No provision	Under 16.
Umbrella manufacturing (Oct. 16).	35–65 cents per hour, New York; 32½–60 cents per hour, elsewhere.	40 per week, 8 per day, 5-day week. 16 hours in 2 successive days emergency repair. 84 hours in 2-week period, watchmen. One shift of employees.	No general provision. 1½ regular rate, emergency repair.	Do.
Underwear and allied products manufacturing (Oct. 2).	$12 per week, South; $13 per week, North	40 per week (10 percent tolerance on emergency work), factory. 40 per week averaged over 1 month, office. Operation limited to 1 shift for sewing machines and 2 shifts for knitting machines.	No provision	Do.
				Do.
Wall paper manufacturing (Sept. 18).	32½ cents per hour, females; 35 cents per hour, males.	40 per week, 8 per day. Operation limited to 2 shifts.	No general provision. 1½ regular rate, repair-shop crews, etc., paid by hour.	
Washing and ironing machinery manufacturing (Nov. 6).	40 cents per hour for males, 36 cents per hour for females, factory. $15 per week, office.	40 per week, 8 per day (of 24 hours), 6-day week (10 percent tolerance for repair work, etc.), factory. 40 per week 6-day week, office.	No provision	Under 16, general. Under 18, hazardous occupations.
Women's belts (Oct. 13)	$14 per week, unskilled labor and office workers. $17–$28 per week, according to occupation, others.	40 per week, 8 per day (of 24 hours)	No overtime permitted	Under 16.
Wool textile (Aug. 14)	32½ cents per hour, South; 35 cents per hour, North.	40 per week. Operation limited to 2 shifts	No provision	Do.
Agriculture				
Beet sugar (Nov. 6)	32½ cents per hour, factory. $14–$15 per week, according to population, office.	40 per week, 8 per day, factory. 40 per week, office. 84 hours in 2 weeks, watchmen. Peak period (not to exceed 135 days in California or 120 days in other States), 56 per week, 8 per day, factory; 48 per week, 8 per day, office.	No general provision. 1½ regular rate, emergency repair, etc.	Under 16, general. Under 18, loading and unloading.

[2] Unless rate was lower on July 15, 1929, but in no case less than 30 cents an hour.

MINIMUM WAGE

Minimum Wage Legislation in The United States

MINIMUM wage legislation took a decided turn during 1933 from a rather doubtful and discouraging past to a brighter and more encouraging future. During the legislative year 1933 seven States enacted laws providing for the payment of a minimum wage to women and minors. (Connecticut, Illinois, New Hampshire, New Jersey, New York, Ohio, and Utah.)[1] This makes a total of 16 States having some form of a minimum wage law, as 9 States had such laws at the beginning of the year. (California, Colorado, Massachusetts, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin.)[2]

The States of Nebraska, Texas, and Utah enacted laws on this subject, but the laws were later repealed.[3] In Nebraska the only appropriation made in connection with the minimum wage law was the initial appropriation of $500 which was later placed in the sinking fund, as no action was taken under the law. After 6 years of inoperative existence the law was repealed. As the law was never enforced, its failure and repeal seem to have been the result of lack of proper administration rather than a failure of the law itself. In Texas the law passed in 1919 was repealed in 1921, and at the same time a new bill was passed relating to minimum wages for women and minors; it was, however, vetoed by the Governor and therefore never became a law. In 1929 the Legislature of Utah repealed a law on this subject which had been enacted in 1913. A second law requiring the payment of a minimum wage to women and minors was enacted in Utah during 1933, as noted above. It is therefore apparent that the repeal of these minimum wage laws does not indicate that the laws in themselves were a failure.

The constitutionality of minimum wage legislation has been attacked in several cases before the United States Supreme Court as well as before State courts. The first case to reach the United States Supreme Court was that of *Stettler* v. *O'Hara* (243 U.S. 629)[4] which arose under the minimum wage law enacted by the State of Oregon. The State supreme court found no violation of either the Federal or the State Constitution in the enactment and enforcement of the minimum wage law. In declaring the law valid, the Oregon court quoted from a report of the commission on minimum wage boards appointed by the Massachusetts Legislature to investigate conditions as follows:

> Women in general are working because of dire necessity and in most cases the combined income of the family is not more than adequate to meet the family's cost of living. In these cases it is not optional with the women to decline low-paid employment. Every dollar added to the family income is needed to lighten

[1] See complete text of law for New Hampshire, New Jersey, New York, and Utah in Monthly Labor Review, June 1933 (pp. 1259–1276); for Connecticut and Ohio, Monthly Labor Review, July 1933 (pp. 57–65); and Illinois, Monthly Labor Review, August 1933 (p. 306).

[2] See complete text of these laws in U.S. Bureau of Labor Statistics Bul. Nos. 370, 403, 470, and 528; and Monthly Labor Review, November 1929 (pp. 29–39).

[3] Nebraska, ch. 190, Acts of 1919; Texas, ch. 118, Acts of 1921; Utah, ch. 9, Acts of 1929.

[4] For State decision see 69 Oreg. 519; 70 Oreg. 261.

the burden which the rest are carrying * * *. Wherever the wages of such a woman are less than the cost of living and the reasonable provision for maintaining the worker in health, the industry employing her is in receipt of the working energy of a human being at less than its cost, and to that extent is parasitic. The balance must be made up in some way. It is generally paid by the industry employing the father. It is sometimes paid in part by future inefficiency of the worker herself, and by her children, and perhaps in part ultimately by charity and the State * * *. If an industry is permanently dependent for its existence on underpaid labor, its value to the Commonwealth is questionable.

The court also said that "every argument put forward to sustain the maximum hours law, or upon which it was established, applies equally in favor of the constitutionality of the minimum wage law as also within the police power of the State and as a regulation tending to guard the public morals and the public health * * *."

This decision was appealed to the United States Supreme Court and in 1917 that court affirmed the decision, the court being equally divided, four justices in favor of the constitutionality, four justices against, and one taking no part in the decision.

In 1923 the United States Supreme Court had occasion to render an opinion on the minimum wage law adopted by Congress for the District of Columbia.[5] The law was declared unconstitutional because the Court found that it violated the guaranties of the Federal Constitution in that it denied the freedom of contract and resulted in deprivation of property without due process of law. This was a 5–3 decision rendered over the vigorous protest of Mr. Chief Justice Taft, and was rather surprising when viewed in the light of prior decisions of the same court. In earlier cases the Supreme Court had declared valid, without finding any violation of the "freedom of contract" or "due process," such "public health and welfare" laws as those limiting the hours of labor for women and minors. In one of the cases Mr. Justice Brewer had said: "The fact that both parties are of full age and competent to contract does not necessarily deprive the State of the power to interfere where the parties do not stand upon an equality or where the public health demands that one party to the contract shall be protected against himself." (*Holden* v. *Hardy*, 169 U.S. 366.) In the case of *Muller* v. *Oregon*, 208 U.S. 412, the court said in regard to legislation enacted for the protection of women that such legislation was justified not only for the protection of the woman's own health but also for the well-being of the race.

Upon the authority of *Adkins* v. *Children's Hospital*, supra, a decision was rendered in 1925 declaring the Arizona law void (*Murphy* v. *Sardell*, 269 U.S. 530); and in 1927 the Arkansas law was also declared unconstitutional. (*Donham* v. *West-Nelson Mfg. Co.*, 273 U.S. 657.) Several State supreme courts, following the decision of the United States Supreme Court, thereupon declared the State minimum wage laws unconstitutional. The Kansas law was voided in the decision of the State court in the case of *Topeka Laundry Co.* v. *Court of Industrial Relations*, (119 Kans. 13); the Puerto Rican law was declared unconstitutional by the Puerto Rican Supreme Court in the case of *People* v. *Successors of Laurnaga & Co.* (32 P.R. Rep. 766). The Minnesota law has been declared constitutional in several decisions by the State supreme court;[6] however, the latest case, that of *Stevenson* v. *St. Clair* (161 Minn. 444), took into consideration the decision

[5] *Adkins* v. *Children's Hospital*, 261 U.S. 525.
[6] See: *Williams* v. *Evans*, 139 Minn. 32; *G. O. Miller Telegraph Co.* v. *Minimum Wage Commission*, 145 Minn. 262; *State* v. *Allyn*, 150 Minn. 123.

of the United States Supreme Court in the Adkins case but held that it did not affect the minimum wage law as applied to minors, and therefore that phase of the law is still in force and effect.

The supreme courts of other States, on the other hand, have found the minimum wage laws constitutional and a valid exercise of the police power. The North Dakota law was upheld in *Northwestern T. E. Co.* v. *Workmen's Compensation Bureau* (47 N.D. 397); the Washington minimum wage law was declared constitutional in several decisions of the State supreme court.[7] The Massachusetts law, although differing from the usual type of minimum wage law, has also been declared constitutional by the State court.[8]

Of the minimum wage laws passed this year those of Connecticut, Illinois, New Hampshire, New Jersey, New York, and Ohio are based upon the standard minimum wage bill sponsored by the National Consumers' League. The standard bill does not attempt to regulate wages generally. Whenever a substantial number of women and minors in any occupation are receiving less than a subsistence wage the law provides that an investigation be made to determine whether the wages are "fairly and reasonably commensurate with the value of the service or class of service rendered."

The law has defined an unreasonable wage as one that is "less than the fair and reasonable value of the services rendered and less than sufficient to meet the minimum cost of living necessary for health."

The Utah minimum wage law is similar to the California law. The State industrial commission is empowered to ascertain the wages paid, the hours, and conditions of labor in the various occupations.

Upon investigation, if it is determined that the wages paid "are inadequate to supply the cost of proper living", the law provides that the commission shall call a "wage board" into conference. After a public hearing, the commission is empowered to fix a minimum wage, a maximum number of hours, and the standard conditions of labor "demanded by the health and welfare of the women and minors engaged in any occupation." A mandatory order may be subsequently issued setting forth the minimum wage and the maximum hours.

As to whether the laws adopted during the present year will successfully pass the constitutional tests, any opinion would be a mere prophecy. However, these laws were drawn by the legislatures in view of the objections raised in the Adkins case and it is evident that the laws were so worded as to overcome the major difficulties. During the recent period of economic depression it has become apparent that unfair wage standards not only undermine the health and well-being of the workers but threaten the stability of industry itself. As a protection, therefore, against unfair methods of competition by ruthless and unscrupulous competitors the States have again turned their attention towards minimum wage laws, for now as never before is realized the close relationship between the payment of a minimum wage and the economic well-being of the race. The experience of the past few years should add much force and weight to the reasoning in the opinion in *Stettler* v. *O'Hara* holding that the enactment of such laws is a valid exercise of the police power and that they are not only a valid but a necessary means of protecting the public health, morals, and welfare.

[7] See: *Larsen* v. *Rice*, 100 Wash. 642; *Spokane Hotel Co.* v. *Younger*, 113 Wash. 359; *Sparks* v. *Moritz*, 141 Wash. 417.

[8] *Holcombe* v. *Creamer*, 231 Mass. 99.

PRINCIPAL PROVISIONS OF MINIMUM WAGE LAWS IN EFFECT IN 1933

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Calif....	Deering's Gen. Laws 1931; Act 3613.	Women; minors (females under 21, males under 18).	Women physically defective by age or otherwise may be granted special license. License must be renewed every 6 months. Apprentices: Special wages set by commission during specified period of apprenticeship.	Occupations, trades, and industries in which women and minors are employed.	Industrial welfare commission of 5 members (1 a woman) appointed by Governor for 4 years.	At discretion of commission. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	Commissioner convenes wage board composed of representatives of employers and employees in trade in question, with member of commission as chairman; after investigation the board reports to commission the minimum wage it deems necessary. After public hearing commissioner fixes minimum wage for the trade.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be adequate to supply necessary cost of proper living, and to maintain health and welfare of workers.
Colo....	Comp. Laws 1921; secs. 4262–4283.	Women; minors (either sex under 18 years of age).	Women physically defective or crippled by age or otherwise or less efficient than those of ordinary ability may be granted special license, stating wage; number so licensed must not exceed one tenth of total employed in establishment.	Any occupation (construed to include "any and every vocation, trade, pursuit, and industry").	Industrial commission of 3 members (not more than 1 each representing employees and employers), appointed by Governor, with consent of senate, for 6 years.	At discretion of commission or at request of not less than 25 persons engaged in the occupation. Investigation conducted by examining books, papers, and witnesses, and by holding public hearings.	Commission may itself investigate and set minimum wage for an occupation, or it may establish wage board composed of member of commission and not more than 3 representatives each of employers concerned, of female employees, and of public. Representatives of employers and the employees to be elected by their respective groups; at least 1 member of every group to be a woman. Wage board investigates and reports to commission a minimum wage which commission may accept or reject.	....do....	Wage must be adequate to supply necessary cost of living and to maintain health, and must be sufficient living wages for women and minors of ordinary ability.

PRINCIPAL PROVISIONS OF MINIMUM WAGE LAWS IN EFFECT IN 1933—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Conn...	Acts of 1933, ch. 301.	Women; minors (either sex, under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may obtain special license authorizing wage lower than established minimum for fixed period.	Any sweatshop occupation (defined as industry, trade, business, or occupation paying unfair and oppressive wages, but not including domestic service in employer's home or labor on farm).	Commissioner of labor and director of minimum wage division which may be set up in department of labor.	At discretion of commissioner or director, or at request of 50 or more residents of State.	Commissioner, after conferring with director, appoints wage board composed of not more than 3 representatives each of employers and of employees concerned (to be selected as far as practicable from nominations by respective groups), and of public. After studying evidence and information in commissioner's possession, board must, within 60 days of its organization, submit report, including recommended minimum fair-wage standards for women and minors in occupation. The commissioner may accept or reject this report.	Noncompliance with mandatory order makes employer liable to fine or imprisonment or both. Each week, in any day of which an employee is paid less than rate set by order, constitutes separate offense as to each employee so paid. Employee may recover back wages and costs.	Wage must be sufficient to meet minimum cost of living necessary for health.

Ill.	Acts of 1933, p. 597.	Women; minors (females under 18, males under 21 years of age).	——do——	Any industry, trade, or business, branch thereof, or class of work therein, in which women or minors are gainfully employed (not including domestic service in employer's home or labor on farm).	Department of labor, having director and assistant director appointed by governor with advice and consent of senate.	At discretion of department or at request of 50 or more residents of any county.	Director appoints wage board composed of not more than 2 representatives each of employers and of employees in the occupation (to be selected as far as practicable from nominations submitted by respective groups), and of 1 disinterested person representing public. The board investigates wage standards of women or minors in specified occupation, and recommends minimum wage which may be accepted or rejected.	Violation of mandatory order deemed misdemeanor and punished by fine or imprisonment or both. Each week, in any day of which order is not complied with, constitutes separate offense as to each employee concerned.	Wage must be fairly commensurate with value of service rendered, and sufficient to meet minimum cost of living necessary for health.
Mass.	Gen. Laws 1932, ch. 151, secs. 1–15.	Females; minors (under 18 years of age).	Women physically defective may obtain license authorizing wage lower than established minimum.	Any occupation.	Board of conciliation and arbitration, composed of 3 associate commissioners of department of labor and industries (1 representing labor and 1 representing employers), appointed by governor for 3 years.	At discretion of board.	Board organizes wage board composed of equal number of representatives each of employers and of female employees in the occupation (to be selected from names furnished by respective groups), and of 1 or more disinterested persons to represent public (but representatives of public not to exceed half the number of representatives of either of the other parties). After study, wage board recommends a minimum wage which board may accept or reject.	Publication of names of all employers refusing to comply with awards of board.	Wage must be suitable for female of ordinary ability, be based on needs of employee and financial condition of industry, and be adequate to supply necessary cost of living and maintain the worker in health.

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PRINCIPAL PROVISIONS OF MINIMUM WAGE LAWS IN EFFECT IN 1933—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Minn.	Gen. Stats. 1923, sec. 4210-4232.	Women; minors (females under 18 years of age, males under 21 years of age).	Women physically defective may obtain license fixing wage lower than established minimum. Licensees not to exceed one tenth of number employed in establishment.	Any occupation (defined as any business, industry, trade, or branch of a trade).	Industrial commission of 3 members, appointed by governor with advice and consent of senate, for 6 years.	At discretion of commission or at request of 100 persons engaged in the occupation. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	Commission may itself investigate and determine a minimum wage for occupation in question, or it may establish advisory board composed of not less than 3 or more than 10 representatives each of employers and of employees in occupation and 1 or more representatives of public (but no more representatives of public than in either one of the other groups). At least one fifth of board must be women and public group must contain at least 1 woman. After examination of books and witnesses board recommends minimum wage, which commission may accept or reject.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be adequate to supply living wages for women and minors of ordinary ability.
N.H.	Acts of 1933, ch. 87.	Women; minors (either sex, under 21 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade, or business, or branch thereof, but not including domestic service in employer's home or labor on farm).	Labor commissioner, appointed by Governor with advice and consent of council, for 3 years.	At discretion of commissioner or on petition of 50 or more residents of State. Investigation conducted by examination of witnesses, books, records, and other relevant evidence.	Commissioner appoints wage board composed of not more than 3 representatives each of employers and employes in the occupation (to be selected as far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage which commissioner may accept or reject.	Noncompliance with mandatory order makes employer liable to fine or imprisonment or both. Each week, in any day of which an employee is paid less than rate set by order, constitutes separate offense as to each employee so paid.	Wage must be fairly and reasonably commensurate with value of service or class of service rendered.

N.J.	Acts of 1933, ch. 152.	do	do	Any occupation (defined as industry, trade, or business, or branch thereof, but not including domestic service in employer's home, labor on farm, or employment in a hotel).	Commissioner of labor, with director of minimum wage division and such deputy directors as commissioner deems advisable.	At discretion of commissioner or on petition of 50 or more residents of State.	do	Employee may recover wages and costs. Payment of wages less than those set by mandatory order deemed a misdemeanor and punished by fine or imprisonment or both. Each week, in any day of which an order is not complied with, constitutes a separate offense as to each employee so paid.	Do.
N.Y.	Acts of 1933, ch. 584.	Women; minors (either sex, under 18 years of age).	do	Any occupation (defined as industry, trade, or business, or branch thereof or class of work therein, in which women or minors are gainfully employed, but not including domestic service in employer's home or labor on farm).	do	do	do	do	Do.
N.Dak.	Supp. to Comp. Laws 1913–1925, ch. 5, art. 11b, secs. 396b1–396b17.	do	Females physically defective by age or otherwise (or apprentices or learners in occupation usually requiring such) may be granted special license authorizing wage lower than established minimum.	Any occupation (defined as business, industry, trade, or branch thereof, but not including agricultural or domestic service).	Workmen's compensation bureau, composed of 3 commissioners (1 representing employers, 1 employees, and 1 public), appointed by governor for 6 years.	At discretion of bureau. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings.	Bureau organizes conference composed of not more than 3 representatives each of employers and of employees in the occupation in question, and of public, and 1 or more commissioners. Conference investigates and recommends minimum wage, which bureau may accept or reject.	Refusal to comply with order of workmen's compensation bureau is unlawful. Employee may recover back wages and costs.	Wage must be adequate to supply necessary cost of living and maintain women workers in health. Reasonable wages for minor workers.

PRINCIPAL PROVISIONS OF MINIMUM WAGE LAWS IN EFFECT IN 1933—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this body	Method of arriving at wage awards	Means provided for securing enforcement of award	Principles by which amount of award is determined
Ohio	Acts of 1933, H. B. 681.	Women; minors (either sex, under 18 years of age).	Women or minors (including learners or apprentices) with earning capacity impaired by age, physical or mental deficiency, or injury, may be granted special license authorizing wage lower than established minimum for fixed period.	Any occupation (defined as industry, trade, or business, or branch thereof, or class of work therein, in which women or minors are gainfully employed, but not including agricultural or domestic service).	Director of industrial relations, with superintendent of minimum wage division and such assistant superintendents as may be necessary.	At discretion of commissioner or on petition of 50 or more residents of State.	Commissioner appoints wage board composed of not more than 3 representatives each of employers and of employees in the occupation (to be selected as far as practicable from nominations by respective groups) and of public. Board investigates and recommends minimum wage, which commissioner may accept or reject.	Payment of wages less than those set by mandatory order deemed a misdemeanor and punished by fine or imprisonment or both. Each week, in any day of which order is not complied with, constitutes a separate offense as to each employee so paid.	Wage must be fairly and reasonably commensurate with value of service or class of service rendered.
Oreg	Code 1930, secs. 49-303—49-324; Acts of 1931, ch. 394, secs. 1-3.	do	Women physically defective or crippled by age or otherwise may obtain license fixing wage lower than established minimum.	Any occupation (defined as any and every vocation, pursuit, trade, and industry).	Industrial welfare commission of 3 members (1 representing employers and 1 employees), appointed by governor for 3 years.	At discretion of commission. Investigation conducted by examining papers, books, and witnesses, and by holding public hearings.	Commission organizes conference composed of not more than 3 representatives each of employers and of employees in the occupation and of public, and 1 or more commissioners. Conference investigates and recommends minimum wage, which commission may accept or reject.	Refusal to comply with law a misdemeanor and punishable by fine or imprisonment or both. Employee may recover back wages and costs.	Wage must be adequate to supply necessary cost of living and to maintain health.
S. Dak	Comp. Laws 1929 (as amended) secs. 10022A-10022E.	Women and girls over 14 years of age.	Women mentally or physically deficient or disabled may obtain permit authorizing wage, lower than established minimum. Apprentices: Industrial commissioner must	Any factory, workshop, mechanical or mercantile establishment, laundry, hotel, restaurant, or packing house.	Industrial commissioner appointed by governor for 2 years.	----------	Minimum wage fixed by law.	Refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Wage must be amount which equals a living wage.

			be notified of each apprentice and give permission for his employment.							
Utah	Acts of 1933, ch. 38.	Women; minors (either sex under 21 years of age, but commission not authorized to fix minimum wages and maximum hours for males between 18 and 21).	Women physically defective by age or otherwise may be granted special license. License must be renewed every 6 months. Apprentices: Special wages set by commission during specified period of apprenticeship.	Occupations, trades, and industries in which women and minors are employed.	Industrial commission of 3 members, appointed by governor for 4 years.	At discretion of commission. Investigation conducted by examining papers, books, witnesses, and by holding public hearings.	do	Commission calls wage board composed of equal number of representatives of employers and employees in trade in question, with a representative of commission as chairman. Board investigates and reports to commission, which fixes minimum wage after public hearing.	Payment of less than fixed minimum wage or refusal to comply with provisions of law a misdemeanor. Employee may recover back wages and costs.	Wage must be adequate to supply to women and minors the cost of proper living, and to maintain the health and welfare of such workers.
Wash	Remington's Rev. Stats. 1931, secs. 7623–7641.	Women; minors (either sex under 18 years of age).	Women physically defective or crippled by age or otherwise (or apprentices in occupation usually requiring such) may secure license authorizing wage lower than legal minimum.	Occupations, trades, and industries.	Industrial welfare committee, composed of director of labor and industries appointed by governor with consent of senate and holding office at his pleasure, supervisor of industrial insurance and supervisor of industrial relations appointed by director of labor and industries, and supervisor of women in industry appointed by supervisor of industrial relations with approval of director of labor and industries.	do	Commission organizes conference composed of equal number of representatives of employers and employees in occupation in question and 1 or more representatives of public (but no more representatives of public than in either one of the other groups), and a member of commission. Conference recommends minimum wage, which commission may accept or reject.	Payment of wages less than standard minimum or refusal to comply with law a misdemeanor. Employee may recover back wages and costs.	Amount must be a reasonable wage, not detrimental to health and morals and sufficient for decent maintenance of women.

PRINCIPAL PRVOISIONS OF MINIMUM WAGE LAWS IN EFFECT IN 1933—Continued

State	Citation	Classes covered	Exceptions	Occupations or industries covered	Body empowered to administer law	Method of selecting occupation or industry to be considered by this bydy	Method of arriving at wage awar8s	Means provided for securing enforcem ent award	Principles by which amount of award determined
Wis....	Stat., 1931, secs. 104.-01–104.-125.	Women; minors.	Adult women unable to earn minimum may obtain license fixing lower wage. Employer may obtain license to pay adult females wage lower than established rate, if he establishes satisfactorily that he is unable to pay such wage. Minors unable to earn "a living wage" may obtain license fixing lower wage.	Every person in receipt of, or entitled to, any compensation for labor performed for any employer.	Industrial commission whose members are appointed by Governor, with advice and consent of senate, for 6 years.	At discretion of commission or on verified complaint filed by any person.	Commission organizes advisory wage board, selected to represent fairly employers, employees, and public. Living wage determined by commission and advisory board shall be the legal minimum wage.	Payment of wages in violation of any order of commission deemed violation of law, unless it can be proved that the order was unreasonable. Every day an order is not complied with is a separate offense.	Amount must be a "living wage", i.e., sufficient to maintain employee under conditions consistent with his welfare. Wage must not be oppressive (defined as "lower than a reasonable and adequate compensation for services rendered").

WOMEN IN INDUSTRY

Employment Methods During Change to Dial Telephone

INFORMATION regarding methods of handling the employment problems resulting from transition from the manual to the dial telephone system is contained in Bulletin No. 110 of the Women's Bureau of the United States Department of Labor, prepared by Ethel L. Best, industrial supervisor of the Bureau. The bulletin presents illustrative data based on a study of two cities, one in which the change involved about one third of the city's telephones and the other, a smaller city, in which there was a complete cut-over to the dial system.

In the latter city, with a population of about 200,000, the number of operators 6 months before the change was 547, and 6 months after the change, 249. In the larger city, where only a part of the system was affected by the cut-over, the operating force in the dial offices was reduced from 424 to 128.

On the basis of detailed information furnished by the telephone companies, supplemented by interviews with operators affected by the change, it was ascertained that in these cities the companies exercised much care in reducing the hardships attending the change.

In the city where a complete cut-over was made the change occurred in July 1930. After October 1927 vacancies due to normal resignations or separations were filled by employees engaged on a temporary basis, and as far as possible were former employees or others who were willing to accept temporary appointments. Some vacancies were filled by borrowing employees from other cities. Of the 116 operators who were discharged at the time of the cut-over, all but 4 had been working under temporary appointments, and these 4 were married women not seriously inconvenienced by the loss of jobs. Many of those who were not needed locally were transferred to other cities. The company also secured offers of positions from other employers and succeeded in this way in placing 11 operators in permanent positions in other types of work.

In the case of the city where the cut-over affected only a part of the system, substantially the same methods were used by the company.

The inference drawn from the study is that the methods used by employers in these telephone exchanges are "a notable example of the possibilities of long-view planning in cases of technological change."

Effect of Plant Shut-down on Woman Workers

IN 1931, as part of a program of consolidation with other corporations, 2 silk mills, 1 in Philadelphia and 1 in Bethlehem, Pa., closed permanently, throwing out of employment respectively 235 and 139

women. The Pennsylvania bureau of women and children has recently published a study[1] of the experiences of the women thus left without work in a time of widespread unemployment, choosing these 2 instances out of many, partly because the 2 groups included both skilled and unskilled workers, and partly because of the differences in the size and industrial make-up of the 2 cities. Exclusive of clerical or managerial workers there were 374 women who lost their jobs because of the closing of these 2 plants. Of these, 324 were found and interviewed, 199 (85 percent) of the Philadelphia women and 125 (90 percent) of the Bethlehem group. In the main, the women were interviewed about 10 months after their dismissal, though in a few instances 12 months or more had elapsed before they were found.

The majority were skilled workers, more than one half being weavers or warpers. More than half had been earning $20 or over a week for full-time work prior to the shut-down. Their ages ranged from 15 to 72 years, the median age at the time of dismissal being 26 years. All were steady workers. Practically two fifths (39.6 percent) were or had been married. Of the 323 reporting as to their marital status and residence, 293 (90.7 percent) were living with their families.

All of the married women were accustomed to considering their earnings as part of the family income, and three fourths of the single women living with their families turned their entire earnings over to the head of the family. In return, they received from their families room, board, clothing, and an allowance for car fare and spending money, whatever the family was able to afford. Of the single workers who were not turning their entire earnings over to their families, all but one contributed a regular amount for board and room.

Employment Status at Time of Investigation

At the time of the interviews, approximately 10 months after the closing of the mills, 185 (57 percent) of the women were at work, 122 (38 percent) were unemployed, and 17 (5 percent) were not looking for work. This last group consisted mainly of married women whose husbands were at work at the time, and who "did not wish to take jobs from others who needed the work more than they." A considerably larger number (266) of the women had had jobs of one kind or another in the interval between their dismissal from the silk mills and the interview, but many of these had been of short duration. The commonest method of seeking work was to go from mill to mill, or from one employer to another, asking for work and leaving name and address wherever the management would take it. The aid of friends having jobs and willing to help "to get you in" was looked upon as the best chance of securing work. The interval between jobs varied considerably.

Fifty-eight, or one fifth of these women, had located a job before they left the silk mill or within a week after, so that they lost practically no time. Most of these jobs were secured through the intercession of the old employer and in a number of cases the worker stepped into a new job a little before she would otherwise have left the mill which was closing. By the end of 1 month after their dismissal only 33 additional workers had obtained any job at all, a "job" being considered here and elsewhere in this report as work lasting at least 1 week. By the end of 3 months just one half of the total number of dismissed workers had found a first job; by the end of 6 months only two thirds; and by the end of 9 months barely four fifths had secured any job at all.

[1] Pennsylvania. Department of Labor and Industry. Special Bulletin No. 36: Women workers after a plant shut-down, prepared by the Bureau of Women and Children. [Harrisburg], 1933.

Jobs and Earnings

ALMOST without exception the women had wanted to get back into the silk industry, and had taken other work simply because it was all they could get. About two fifths (127) of the total group had secured work in silk manufacturing, 21 in other kinds of manufacturing, 18 in domestic service, 6 in beauty parlors, and 4 in mercantile employment, 9 being scattered in other kinds of industries.

The acquiring of a new skill to provide the means of earning a good living outside the silk industry was a perplexing problem. "I want to learn some new work, but I can't tell what would be a good line to go into. It seems as if everything is up and down and there's no steady line of work." Although six of the silk workers had taken beauty-culture courses since their dismissals, there was a real question as to whether there was room in this line of work for new workers. * * * The expressed need on the part of many of these women for vocational guidance was not being met. The women were either being guided by the advertising of commercial institutions or were floundering alone. The cost of financing any kind of a training course in addition to the living expenses during training were obstacles which most of the women with their meager savings and resources could not meet even if there had been no question as to what type of work to select.

Effect of Change on Earnings

TAKING the 185 women who, at the time of the interview, were holding jobs, it developed that their median earnings for a full-time week at their old jobs were $19.23, according to the records of their employers, while the corresponding figure the workers reported for their new jobs was $13.86, the median varying according to the industry from $15.69 for those employed in silk mills to $8.50 for those in other industries. This statement, however, gives too favorable a picture of the position at the time of the interview.

The full-time weekly earnings figures which have been given to compare the old and new jobs were not the workers' actual weekly earnings at the new jobs, since one third of the new jobs were part-time work. The median earnings on all the new jobs for the time actually worked were $11.42 a week.

The extent to which these women suffered loss of earnings in the period following their dismissals depended not only on the reduction in wage rates but also on the proportion of unemployed time. Taking into consideration both reduction of wage rates and the amount of unemployment, the average earnings of the women for the whole period between the date of dismissal and the date of interview, approximately 10 months, may be roughly estimated as only 33 percent of the earnings for the corresponding period prior to their dismissal.

Difficulties of Adjustment

AGE as a handicap in securing a job did not appear so early and so markedly as might have been anticipated. Still, the younger workers had the advantage.

The group of workers 20 to 24 years of age had, however, the greatest success in getting new jobs. While 69.5 percent of this group had jobs at the time of interview, only 58.3 percent of the next older age group, 25 to 29, had jobs at the time of interview. The workers over 50 years of age were at a very decided disadvantage. Only 7 out of 17 had jobs at the time of interview.

Those over 40 found their age a decided hindrance to getting jobs in the silk industry, the kind of work to which they all wished to get back. This is in part attributable to the speeding up in the industry, "which was the subject of frequent complaint by workers both young

and old but which was more disastrous to the older workers who were less able to keep the pace." There was little choice of occupation for those who were distinctly elderly.

Practically all of the older women with jobs were in domestic service; others trying domestic work found they "didn't suit." "To do housework you need to have learned how and I always worked in the silk mill."

The period of unemployment had brought hardship to a number. Of the 30 women who were living independently, 6 had found work for at least a part of the time since leaving the silk mills, and had been able to live somehow on what they had earned. Eleven had lived on their savings or other capital resources, while 13 had not had sufficient resources to tide them over their period of unemployment and had had to seek help from friends, or, if that were not available, from public charity. The women living with their families had had nearly the same experiences, except that in their cases the unemployment and suffering had been a group matter.

In the majority of families, the combined earnings of the silk worker and other wage earners were not sufficient for the family to get along during the whole period since the silk worker's dismissal, for unemployment was very prevalent among the other wage earners in the families. The rate of unemployment among the individual wage earners in the families exclusive of the silk workers was 37 percent wholly unemployed, and 35 percent part-time employed. At the time of the interview 9 percent of the 276 families of the silk workers reporting on employment status had no one at all working. Forty percent, 110 families, had no one working full time.

Nearly two thirds of these families had had savings of $50 or more at the time of the silk worker's dismissal, but nearly half had no savings when interviewed. In most cases the money had gone for living expenses, but in 27 instances all or part of the savings had been lost in bank failures. Of those reporting on means of support, 106 found earnings and savings insufficient to keep the family and turned to outside help. The most common type of such help was credit.

Some of this was credit from landlord or grocer, other was overdue interest on a mortgage or unpaid taxes. Some received loans from friends and many received regular contributions from relatives, friends, or neighbors in food, clothing, or money. Fourteen of the families were receiving relief from organized relief agencies.

Conclusions

In summing up the situation, the report points out that these women had learned and labored to get their own livings, that they had done so successfully for periods varying with their age, and that their failure to continue to do so was in no sense their own fault. Nevertheless, they had to bear the burden of an idleness entirely beyond their control, and their physical hardships were increased by their sense of something abnormal and wrong in the position.

These women, many of them having given long years of service to an industry, were frequently distressed and bewildered by their situation. Their labor no longer wanted, they were left to shift for themselves. There was a sense of injustice that they should be cut off from their means of a livelihood through no fault of their own.

The need of some modicum of security such as unemployment insurance was clearly demonstrated, the need for something that could be depended upon to help tide over periods of unemployment and to facilitate the shift to new types of work, the need for something that would be received as a right and not as a charity.

Influence of Depression on Expenditures of Business Women

IN ITS December issue the Woman's Press, organ of the Young Women's Christian Association, gives some figures relating to the income and expenditures in 1931 and 1932 of a group of girls who kept accurate accounts of what they earned and what they spent during the autumn months of both years.

In the fall of 1931 (in September, October, and November, to be exact), 313 girls kept accurate records of their daily spendings, and in the same months of the fall of 1932, 147 of these 313 did exactly the same thing. * * *

They were a mixed group; they came from all over the United States of America, they were engaged in all manner of clerical occupations, the bulk of them being stenographers, but secretaries also were included, bookkeepers, file clerks, and girls who called themselves clerical workers. They came from large cities and small cities, big towns and little; they lived at home and they lived away from home. In fact, they were a cross section of those nearly 2,000,000 business women reported by the last census. A few teachers, librarians, and doctors' assistants also took part in the study.

Earnings

THEIR weekly earnings ranged from a little under $10 up to over $40. The following table shows the number and proportion in each wage group for each year.

CLASSIFICATION BY EARNINGS IN 1931 AND 1932

Weekly earnings	Girls receiving specified earnings in—			
	1931		1932	
	Number	Percent	Number	Percent
$5 to $9.99	2	0.6	6	4.1
$10 to $14.99	17	5.4	13	8.8
$15 to $19.99	83	26.5	42	28.6
$20 to $24.99	93	29.7	47	32.0
$25 to $29.99	56	17.9	22	15.0
$30 to $34.99	29	9.3	14	9.5
$35 to $39.99	26	8.3	3	2.0
$40 to $44.99	7	2.2	----	----
Total	313	100.0	147	100.0

The increased proportion in the lower earnings groups in 1932 is at once apparent. As not all of the 1931 group reported in 1932, it is not possible to say just what this downward movement means in terms of individual earnings. For 128, however, complete details were received, and of these, 65 percent were receiving lower wages in 1932 than in 1931.

* * * The largest actual number receiving a reduction was in the $15 to $19.99 group, of whom over 63 percent received 27 percent lower wages. But the most distressing group was perhaps the $10 to $14.99 of which 83 percent had received an average of 62 percent decrease in wages. All the girls in the very lowest group in 1932 had received cuts amounting to an average of 37 percent.

The higher the wage the smaller was the number of persons receiving cuts. The smaller the present rate of wages the greater was the rate of reduction on an earlier wage. The insecurity of the low-wage group is again borne witness to.

A separate study of the budgets of 150 business girls in Denver, Colo., showed the same general situation as to the incidence of wage

cuts. Of these, 57 percent had had salary cuts amounting to 16.5 percent on an average, ranging from an average of 4.8 percent in the highest-paid group to 23 percent in the lowest-paid group.

Although the present study does not take up the situation in 1933, it is known that wage cuts, many of them drastic, have taken place since the fall of 1932.

Disposition of Earnings

COMPREHENSIVE budgets of expenditures are not given, so that it is not possible to trace fully the changes caused by the reduction in income. Even in 1931 it was evident that in many cases the amount earned was not adequate for healthful support.

> Careful and exact budgeting in this group of 313, of whom 195 earned less than $25 a week, exposes some of the inadequacies of the income and of the amounts which it is possible to set aside for emergencies, health, recreation, and education. There is practically no margin, and whereas in the case of the $10 to $14.99 group there was an average of $1.76 savings per week with only $5.08 spent on room, board, and lunches, it is obvious that subsidization is taking place somewhere. The girl is not earning enough to keep herself, and either her parents or her friends are making up the inadequacy of the wage she receives from her employer, or she is impairing her strength and her future health by poor and insufficient food, inattention to teeth and general health.

In 1932, either the process of subsidization had been carried farther, or the girls were meeting the situation by cutting down on necessaries. Four girls are cited who in 1931 earned an average of $15.60 a week, but whose wages had been so cut that in 1932 they were earning a weekly average of $9.25.

> * * * Before, where they had spent $8 on room, board, and lunches, now in 1932 they reduced this to $5; $2.50 had been spent on clothing, and this went down to $1.83. They had managed somehow to have $2.34 in 1931 to carry over in their pocketbooks from pay day to pay day, and this had now fallen to 18 cents a week.

The study of the 1932 expenditures brought out three features of importance: (1) In 5 out of the 7 earnings groups the amount spent on education and advancement increased in 1932, and in 2 of these groups the increase was very substantial. It is suggested that this may be because the business girl feels "more and more insecurity and wants the slight assurance and hope which a second skill may give her." (2) While the earnings of the girls had decreased in 1932, the proportion of those accepting responsibility for the support of others had increased, and this was true in the case of the girls living independently as well as among those forming part of a family group. (3) It was apparent that in 1932 the girls were trying desperately to build up some protection, however slight, against the future.

> * * * In spite of cut wages, in spite of increased dependents, altered habits, and changed standards of living, savings in 5 out of the 7 wage groups increased in 1932 and increased considerably. In fact even the $20 to $25 a week group, where there were girls who had had cuts amounting to 12 percent of their wages, managed to save an average of $4.71 a week in 1932 as against $3.14 in 1931. The fall of 1932 was a very serious time for business girls and they held tight onto their money, spending it as wisely as they knew how, apparently going without the things they badly needed to save against a worse time which they saw coming. What happened to those savings, we do not know. We do know what happened to savings in general.

CHILD LABOR

Child Labor in the United States, 1932

THE downward trend in employment certificates issued to children between 14 and 16, which has manifested itself during the past decade and has been very marked since 1929, continued in 1932 at about the same rate of decrease as during the preceding year.[1] This trend is shown in table 1 for 42 representative cities reporting annually during a 6-year period, 1927 to 1932. These figures do not give a complete picture of child labor. In the first place, certificates are not required everywhere for all occupations; they are seldom required for street trades or agriculture, and in many places not for domestic service—yet all these are important occupations for younger children. Furthermore, during the years 1930 to 1932, unemployment reduced children's work opportunities in manufacturing, mercantile, and commercial occupations, for which certificates are usually required, but did not affect so much the unregulated employments. Consequently a trend based on figures for employment certificates is more representative of occupations in which unemployment has been pronounced than of all occupations in which children are engaged. Finally, some children obtain jobs for which certificates are required without securing the certificates, and these children are not included in the picture. In spite of these shortcomings, it is believed that statistics for employment certificates indicate the main trend of child labor in urban districts.

TABLE 1.—TREND IN RATE OF FIRST REGULAR EMPLOYMENT CERTIFICATES ISSUED TO CHILDREN 14 AND 15 YEARS OF AGE IN CITIES HAVING 100,000 OR MORE POPULATION REPORTING EACH YEAR 1927 TO 1932[1]

Year	Certificates issued	
	Rate per 10,000 children 14 and 15 years of age	Percent of increase or decrease in rate
1927	973	----------
1928	888	−9
1929	925	+4
1930	615	−34
1931	457	−26
1932	334	−27

[1] Population according to 1930; census includes: Atlanta, Baltimore, Bridgeport, Buffalo, Chattanooga Chicago, Denver, Detroit, Erie, Fort Wayne, Grand Rapids, Hartford, Indianapolis, Kansas City, Knoxville, Los Angeles, Louisville, Lowell, Lynn, Milwaukee, Minneapolis, Nashville, New Haven, New York, Oakland, Omaha, Peoria, Philadelphia, Pittsburgh, Providence, Rochester (N.Y.), St. Paul, Salt Lake City, San Francisco, Scranton, Somerville (Mass.), South Bend, Springfield (Mass.), Washington (D.C.), Wichita, Wilmington (Del.), and Yonkers.

The wide differences in the rates of child employment in 1932, as brought out in table 2, emphasize, as in past years, the fact that the trend reflects social control as well as the demand or lack of demand

[1] Monthly Labor Review, December 1932, pp. 1322-1330: "Trend of Child Labor in the United States, 1920 to 1931."

for child labor. The cities that showed comparatively high rates in 1931 (Bridgeport, Buffalo, Fall River, Lowell, New Haven, New York City, Providence, Scranton, and Utica) had high rates for 1932 also, although with the exception of Utica they all showed decreases in 1932.

TABLE 2.—RATE OF FIRST REGULAR EMPLOYMENT CERTIFICATES ISSUED TO CHILDREN 14 AND 15 YEARS OF AGE IN CITIES HAVING 100,000 OR MORE POPULATION, 1927 TO 1932[1]

City	Rate per 10,000 children 14 and 15 years of age					
	1927	1928	1929	1930	1931	1932
Albany, N.Y.	(2)	(2)	990	776	593	452
Atlanta, Ga.	62	53	22	17	15	7
Baltimore, Md.	1,426	1,171	1,390	881	563	309
Birmingham, Ala.	230	147	(2)	116	36	20
Boston, Mass.	(2)	948	1,120	714	527	274
Bridgeport, Conn.	1,111	1,181	1,657	747	831	676
Buffalo, N.Y.	1,365	1,238	1,395	1,081	859	695
Cambridge, Mass.	(2)	1,298	(2)	(2)	(2)	(2)
Camden, N.J.	(2)	(2)	(2)	(2)	(2)	565
Chattanooga, Tenn.	227	166	259	126	95	52
Chicago, Ill.	400	320	313	100	43	21
Denver, Colo.	260	287	254	222	88	25
Detroit, Mich.	[3] 160	[3] 221	[3] 215	[3] 126	[3] 43	[3] 28
Elizabeth, N.J.	(2)	(2)	(2)	(2)	(2)	833
Erie, Pa.	622	304	318	221	102	77
Fall River, Mass.	(2)	(2)	2,589	1,695	2,054	1,062
Fort Wayne, Ind.	117	138	228	88	22	5
Gary, Ind.	13	22	(2)	(2)	(2)	(2)
Grand Rapids, Mich.	[3] 326	[3] 284	[3] 338	[3] 111	[3] 54	[3] 23
Hartford, Conn.	1,220	855	1,029	551	345	326
Indianapolis, Ind.	231	179	201	98	75	60
Kansas City, Kans.	180	196	297	157	65	19
Kansas City, Mo.	174	167	(2)	117	57	31
Knoxville, Tenn.	494	261	505	221	182	128
Long Beach, Calif.	(2)	62	30	28	24	19
Los Angeles, Calif.	315	248	286	171	101	78
Louisville, Ky.	585	439	530	247	161	105
Lowell, Mass.	638	840	1,277	918	1,000	612
Lynn, Mass.	809	821	969	460	438	337
Memphis, Tenn.	(2)	597	341	203	101	71
Milwaukee, Wis.	956	685	447	182	111	62
Minneapolis, Minn.	91	80	64	64	40	19
Nashville, Tenn.	540	96	76	29	18	24
Newark, N.J.	(2)	(2)	(2)	(2)	594	480
New Bedford, Mass.	(2)	(2)	(2)	(2)	(2)	842
New Haven, Conn.	1,643	1,581	1,429	860	879	635
New York, N.Y.	1,688	1,587	1,627	1,211	969	766
Oakland, Calif.	102	82	85	58	29	13
Omaha, Nebr.	179	103	109	125	134	136
Paterson, N.J.	(2)	(2)	(2)	(2)	(2)	717
Peoria, Ill.	232	219	240	78	19	6
Philadelphia, Pa.	1,584	1,524	1,613	977	629	362
Pittsburgh, Pa.	602	417	594	323	196	111
Portland, Oreg.	(2)	(2)	294	141	(2)	222
Providence, R.I.	[3] 1,830	[3] 1,961	[3] 2,198	[3] 1,466	[3] 1,245	[3] 797
Reading, Pa.	(2)	(2)	(2)	(2)	(2)	556
Richmond, Va.	(2)	(2)	303	196	115	44
Rochester, N.Y.	1,467	1,407	1,268	864	503	313
St. Louis, Mo.	863	745	(2)	(2)	212	93
St. Paul, Minn.	173	154	128	74	50	11
Salt Lake City, Utah	195	247	178	120	54	37
San Diego, Calif.	(2)	(2)	38	72	52	47
San Francisco, Calif.	112	94	100	72	41	20
Scranton, Pa.	1,185	1,161	1,245	849	801	558
Seattle, Wash.	(2)	(2)	(2)	(2)	(2)	82
Somerville, Mass.	857	801	897	495	351	139
South Bend, Ind.	247	212	166	89	43	32
Springfield, Mass.	828	818	853	489	267	271
Syracuse, N.Y.	599	(2)	772	363	324	205
Tulsa, Okla.	(2)	(2)	(2)	(2)	(2)	78
Utica, N.Y.	(2)	(2)	1,898	1,101	921	1,062
Washington, D.C.	150	201	221	242	151	126
Wichita, Kans.	63	77	22	9	3	6
Wilmington, Del.	841	829	921	584	425	331
Worcester, Mass.	(2)	(2)	(2)	(2)	(2)	171
Yonkers, N.Y.	1,074	909	847	735	443	298

[1] Population according to 1930 census.
[2] No report.
[3] Rate of 15-year-old children to population 14 and 15 years of age; law does not permit the issuance of regular certificates to children under 15.

First Regular Employment Certificates Issued in 1932

Number of Children 14 and 15 Years of Age

IN THE States and cities reporting to the Children's Bureau,[2] 50,233 children 14 and 15 years of age obtained first regular employment certificates in 1932 and left school for work (table 3). In addition, certificates were issued to 603 children in places [3] where it was not possible to determine whether the children were leaving school, because there is no provision for a special kind of certificate for work during vacation and after school. In comparable areas, the number of certificates issued in 1932 was 62 percent less than in 1929, and 26 percent less than in 1931, showing that it was becoming increasingly difficult for children to find employment. Although this was the general trend, a number of cities still showed large numbers of children going to work, and in a very few there was a slight increase. The increases, however, in the 6 cities reporting a larger number of certificates issued in 1932 than in 1931, totaled only 108, and were due largely to the greater number of children going to work in domestic and personal service occupations. On the other hand, in 9 cities no certificates had been issued during the year, and in 43 fewer than 25 children had left school for work.[4]

TABLE 3.—NUMBER OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932, AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER [1] REPORTING

State and city	Number of certificates issued			Percent of change in 1932 as compared with—	
	1929 [2]	1931	1932	1929 [3]	1931 [3]
States reporting					
Alabama	----------	263	142	----------	−46
Birmingham	----------	33	19	----------	----------
Mobile	----------	28	25	----------	----------
Montgomery	----------	33	10	----------	----------
Arkansas	----------	99	46	----------	−54
Little Rock	----------	30	31	----------	----------
Connecticut	6,537	3,479	3,500	−46	+1
Bridgeport	915	469	382	−58	−19
Hartford	560	195	187	−67	−4
New Britain	253	161	170	−33	+6
New Haven	884	551	398	−55	−28
Waterbury	374	162	216	−42	+33
District of Columbia	279	194	162	−42	−16
Georgia	----------	496	281	----------	−43
Atlanta	20	14	7	----------	----------
Indiana	822	273	216	−74	−21
Fort Wayne	78	8	2	−97	----------
Hammond	41	20	9	----------	----------
Indianapolis	209	80	65	−69	−19
South Bend	61	17	13	−79	----------
Iowa	[4] 862	[4] 204	[4] 82	−90	−60
Cedar Rapids	[4] 30	[4] 3	0	----------	----------
Davenport	[4] 157	[4] 49	[4] 14	−91	----------
Des Moines	[4] 184	[4] 40	[4] 11	−94	----------
Sioux City	[4] 112	[4] 29	[4] 20	−82	----------
Kansas	170	45	13	−92	----------
Kansas City	124	28	8	−94	----------
Topeka	21	2	1	----------	----------
Wichita	7	1	2	----------	----------
Kentucky	798	259	164	−79	−37
Covington	47	13	9	----------	----------
Louisville	482	149	97	−80	−35

See footnotes at end of table.

[2] 18 States and the District of Columbia; 72 cities in 17 other States.
[3] 2 States; 1 city in 1 other State.
[4] Ohio cities are omitted, because in Ohio certificates for children of 14 and 15 are issued only to the substandard group.

TABLE 3.—NUMBER OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932, AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER REPORTING—Continued

State and city	Number of certificates issued			Percent of change in 1932 as compared with—	
	1929	1931	1932	1929	1931
State reporting—Continued					
Maine	[5] 170	[5] 49	[5] 32	−81	
Portland	[5] 29	[5] 3	[5] 2		
Maryland	[6] 3,815	[6] 1,638	[6] 884	−77	−46
Baltimore	[6] 3,553	[6] 1,466	[6] 812	−77	−45
Massachusetts		6,856	4,320		−37
Boston	2,847	1,359	709	−75	−48
Fall River	1,183	940	486	−59	−48
Holyoke			83		
Lawrence	441	417	173	−61	−59
Lowell	467	366	224	−52	−39
Lynn	333	153	118	−65	−23
Malden			41		
Medford			18		
New Bedford			346		
Newton			24		
Somerville	299	120	48	−84	−60
Springfield	427	139	143	−67	+3
Worcester			121		
Minnesota	253	118	41	−84	−65
Duluth			0		
Minneapolis	93	61	29	−69	−52
St. Paul	112	45	10	−91	
New Hampshire	[7] 1,120	[7] 526	[7] 353	−68	−33
Manchester	[7] 411	[7] 242	81		
New Jersey	[4] 17,385	[4] 11,005	5,201		
Atlantic City			62		
Bayonne			100		
Camden			265		
East Orange			22		
Elizabeth			366		
Hoboken			129		
Irvington			42		
Jersey City	[4] 1,371	[4] 564	[4] 396	−71	−30
Newark	[4] 2,264	959	781		−19
Paterson			345		
Trenton	[4] 824	[4] 376	[4] 276	−67	−27
Union City			134		
New York	54,897	33,691	26,865	−51	−20
Albany	361	222	171	−53	−23
Binghamton	268	247	144	−46	−42
Buffalo	2,783	1,768	1,445	−48	−18
Mount Vernon		72	80		+11
New Rochelle		67	41		−39
New York	35,934	22,244	17,896	−50	−20
Niagara Falls	63	25	14	−78	
Rochester	1,476	606	380	−74	−37
Schenectady	470	216	148	−69	−31
Syracuse	514	225	144	−72	−36
Troy	200	134	64	−68	−52
Utica	671	333	364	−46	+9
Yonkers	413	228	157	−62	−31
North Carolina	6,410	2,135	1,038	−84	−51
Oregon		311	241		−23
Portland	265		210	−21	
Tennessee	1,526	312	295	−81	−5
Chattanooga	97	38	21	−78	
Knoxville	[8] 172	65	47		−28
Memphis	238	74	53	−78	−28
Nashville	36	9	12		
Vermont	77	34	19	−75	
Wisconsin	1,656	458	253	−85	−45
Milwaukee	851	223	127	−85	−43
Cities in States not reporting					
California:					
Berkeley			2		
Fresno			4		
Long Beach	11	10	8		
Los Angeles	857	334	271	−68	−19
Oakland	69	25	11	−84	
Sacramento	56	25	12	−79	

See footnotes at end of table.

TABLE 3.—NUMBER OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932, AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER REPORTING—Continued

State and city	Number of certificates issued			Percent of change in 1932 as compared with—	
	1929	1931	1932	1929	1931
Cities in States not reporting—Continued					
California—Continued.					
San Diego	14	21	20		
San Francisco	145	62	31	−79	−50
San Jose			0		
Colorado:					
Denver	211	75	22	−90	−12
Delaware:					
Wilmington	320	149	116	−64	−72
Illinois:					
Chicago	3,486	504	254	−93	−50
Cicero			1		
Decatur	88	14	8	−91	
East St. Louis	98	28	40	−59	
Oak Park	15	2	0		
Peoria	72	6	2	−97	
Rockford	50	4	1	−98	
Springfield	134	9	5	−96	
Louisiana:					
New Orleans	[9] 1,100	[9] 490	[9] 249	−77	−49
Shreveport			0		
Michigan:					
Dearborn			[5] 2		
Detroit	[5] 1,033	[5] 225	[5] 155	−85	−31
Flint			0		
Grand Rapids	[5] 193	[5] 32	[5] 14	−93	
Hamtramck	[5] 56	[5] 14	[5] 16	−71	
Highland Park	0	[5] 4	0		
Jackson		0	0		
Kalamazoo	[5] 24	[5] 4	[5] 3		
Pontiac		[5] 12	[5] 11		
Saginaw	[5] 8	[5] 23	[5] 6		
Missouri:					
Kansas City	[4] 338	63	35		−44
St. Joseph		39	19		
St. Louis	[4] 1,730	511	225		−56
Springfield		36	37		
Nebraska:					
Lincoln	3	2	1		
Omaha	74	94	96	+30	+2
Ohio:					
Akron	[10] 3	[10] 4	[10] 1		
Canton			0		
Cincinnati	[10] 3	[10] 2	[10] 1		
Cleveland	0	0	0		
Cleveland Heights			0		
Columbus	[10] 7	[10] 5	[10] 1		
Dayton	0	0	[10] 9		
Hamilton			0		
Lakewood			0		
Springfield	[10] 7	[10] 1	[10] 5		
Toledo	[10] 23	[10] 4	[10] 6		
Youngstown	0	0	[10] 2		
Oklahoma:					
Oklahoma City			0		
Tulsa			33		
Pennsylvania:					
Allentown			343		
Altoona			12		
Bethlehem			43		
Chester			31		
Erie	138	46	35	−75	
Harrisburg	109	30	15	−86	
McKeesport			46		
Philadelphia	10,455	4,160	2,411	−77	−42
Pittsburgh	1,429	484	277	−81	−43
Reading			223		
Scranton	757	495	346	−54	−30
York			84		
Rhode Island:					
Pawtucket			[5] 125		
Providence	[5] 1,943	[5] 1,123	[5] 723	−63	−36

See footnotes at end of table.

TABLE 3.—NUMBER OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932, AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER REPORTING—Continued

State and city	Number of certificates issued			Percent of change in 1932 as compared with	
	1929	1931	1932	1928	1931
Cities and States not reporting—Continued					
Utah:					
Salt Lake City	92	29	20	−78	
Virginia:					
Richmond	174	67	26	−85	−61
Roanoke			56		
Washington:					
Seattle			91		
West Virginia:					
Charleston	35		7		
Huntington	60		25	−58	
Wheeling	57		14	−75	

[1] Population according to 1930 census.
[2] Figures not shown for cities not reporting in 1929, nor for cities having less than 50,000 estimated population that year.
[3] Percent not shown where number of children was less than 50 in 1929 or 1931 nor where figures were not available or not comparable.
[4] Includes children to whom regular certificates were issued for work outside school hours and during vacation.
[5] Practically all these were 15-year-old children; minimum age for certification under the law is 15 years but certificates were issued to a few 14-year-old children under special circumstances.
[6] Excludes 213 children in 1929, 108 children in 1931, and 129 children in 1932, to whom "vocational" certificates were issued.
[7] Includes children to whom regular certificates were issued for "after-school" work.
[8] May include a few children to whom certificates were reissued.
[9] Includes children to whom regular certificates were issued for work during vacation.
[10] Children under 16 adjudged incapable of profiting substantially by further instruction.

The drop between 1929 and 1932 was much more pronounced in some localities than in others. In the States of Kansas, Maine, Minnesota, North Carolina, Tennessee, and Wisconsin and in certain cities in other States—Chicago, Decatur, Denver, Detroit, Fort Wayne, Grand Rapids, Harrisburg, Louisville, Oakland, Peoria, Pittsburgh, Richmond, Rockford, Somerville (Mass.), and Springfield (Ill.)—the drop in the number of 14- and 15-year old children was between 80 and 100 percent. In Lynn, Providence, Springfield (Mass.), and Wilmington, it was about 65 percent; in East St. Louis, Fall River, Huntington, and Lawrence, about 60 percent; and in the States of Connecticut and New York, and in Lowell, Portland (Oreg.), Scranton, and the District of Columbia, about 50 percent or less. A few other cities had similar decreases, but the number of certificates issued in 1929 was too small to be significant.

Fourteen is the minimum age required by law for general employment in States reporting the number of certificates issued to children to go to work full time. Maine, Michigan, and Rhode Island fix a 15-year minimum and in Ohio a child of normal intelligence must be 16 years of age before obtaining a regular certificate.[5]

From the localities having a 14-year age minimum there was a report as to age for 46,599 children receiving first regular certificates. Of these, 12,632 (27 percent) were 14 years of age when they started full-time employment. Because of conditions prevailing for the past several years, it might have been expected that 1932 would show a decided decrease in the proportion of these younger children leaving school for work. However, in the places reporting for all

[5] In 1933 Utah and Wisconsin passed laws raising the minimum age for employment during school hours to 16.

3 years, the 14-year-old children constituted almost as large a percent in 1932 (24) as in 1931 (26) or even in 1929 (28).

The proportion of children 14 years of age receiving employment certificates during the years for which the Children's Bureau has information has been smallest in States requiring completion of the eighth grade before children of this age are allowed to go to work. In States having this requirement, only 21 percent of the children obtaining certificates in 1932 were 14 years of age, whereas in States where exemptions to the eighth grade are allowed, 26 percent of the children were 14 years of age, and in the States with a lower educational standard, 43 percent of the children were 14 years of age. However, even in the States with the same legal standard, the percentages vary, indicating that the demand for child labor, and other factors also, play a part in determining the age at which boys and girls go to work.

Number of Minors 16 and 17 Years of Age

The issuance of certificates for boys and girls 16 years of age and over is not a regular practice in most States. Only 17 States and the District of Columbia require certificates for children after they have become 16, and few of these States report the number of such certificates issued. In 4 States and the District of Columbia, and 52 cities in 9 other States, reports received show that 44,850 minors 16 and 17 years of age received work permits in 1932.

TABLE 4.—NUMBER OF MINORS 16 AND 17 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932 AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER [1] REPORTING

State and city	Number of certificates issued			Percent of change in 1932 as compared with—	
	1929 [2]	1931	1932	1929 [3]	1931 [3]
States reporting					
Alabama	----	[4] 821	[4] 663	----	−19
Birmingham	----	[4] 36	[4] 14	----	----
Mobile	----	[4] 56	[4] 23	----	−59
Montgomery	----	[4] 31	[4] 13	----	----
District of Columbia	1,848	1,763	1,175	−36	−33
New York	[4] 29,602	[4] 19,764	[4] 17,893	−40	−9
Albany	[4] 309	[4] 217	[4] 187	−39	−14
Binghamton	[4] 269	[4] 176	[4] 117	−57	−34
Buffalo	[4] 1,877	[4] 1,236	[4] 1,155	−38	−7
Mount Vernon	----	[4] 121	[4] 85	----	−30
New Rochelle	----	[4] 87	[4] 70	----	−20
New York	[4] 18,841	[4] 13,515	[4] 12,765	−32	−6
Niagara Falls	[4] 217	[4] 104	[4] 47	−78	−55
Rochester	[4] 1,220	[4] 799	[4] 573	−53	−28
Schenectady	[4] 429	[4] 162	[4] 125	−71	−23
Syracuse	[4] 361	[4] 130	[4] 148	−59	+14
Troy	[4] 174	[4] 104	[4] 47	−73	−55
Utica	[4] 277	[4] 123	[4] 173	−38	+41
Yonkers	[4] 292	[4] 240	[4] 235	−20	−2
Oregon	----	770	315	----	−59
Portland	1,307	----	224	−83	----
Wisconsin	[4] 5,740	[4] 1,620	[4] 692	−88	−57
Milwaukee	[4] 2,672	[4] 778	[4] 337	−87	−57

See footnotes at end of table.

TABLE 4.—NUMBER OF MINORS 16 AND 17 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN 1929, 1931, AND 1932 AND PERCENT OF CHANGE IN 1932 AS COMPARED WITH 1929 AND 1931 IN STATES AND CITIES OF 50,000 POPULATION AND OVER REPORTING—Continued

State and city	Number of certificates issued			Percent of change in 1932 as compared with—	
	1929	1931	1932	1929	1931
Cities in States not reporting					
California:					
Berkeley			182		
Fresno			299		
Long Beach			64		
Los Angeles	5,311	2,454	2,275	−57	−7
Oakland	1,528	925	565	−63	−39
Sacramento	318	168	143	−55	−15
San Diego	320	374	382	+19	+2
San Francisco	2,037	1,218	869	−57	−29
San Jose			171		
Louisiana:					
New Orleans	[5] 364	[5] 244	[5] 208	−43	−15
Shreveport			0		
Massachusetts:					
Boston	5,173	2,904	2,212	−57	−24
Fall River	630	613	481	−24	−22
Holyoke			93		
Lawrence		1,618	843		−48
Lowell		1,318	1,253		−5
Lynn		344	254		−26
Malden			206		
Medford			158		
New Bedford			357		
Newton			64		
Somerville	975	650	400	−59	−38
Springfield			1,014		
Michigan:					
Dearborn			75		
Detroit		3,296	2,074		−37
Flint			153		
Grand Rapids	985	371	176	−82	−53
Hamtramck	578	333	238	−59	−29
Highland Park	361	129	74	−80	−43
Jackson		44	41		
Kalamazoo	228	73	33	−86	−55
Pontiac		108	116		+7
Saginaw	675	112	37	−95	−67
Ohio:					
Akron	1,036	643	425	−59	−34
Canton			174		
Cincinnati	3,114	1,648	1,183	−62	−28
Cleveland	8,748	7,043	3,631	−58	−48
Cleveland Heights			13		
Columbus	1,200	598	536	−55	−10
Dayton	807	455	306	−62	−33
Hamilton			41		
Lakewood			65		
Springfield	431	213	143	−67	−33
Toledo	1,889	715	549	−71	−23
Youngstown	1,026	751	582	−43	−23
Oklahoma:					
Oklahoma City			3		
Tulsa			65		
Tennessee:					
Chattanooga		35	28		
Knoxville		48	76		
Nashville		144	101		−30
Utah:					
Salt Lake City	488	279	156	−68	−44
Washington:					
Seattle			525		

[1] Population according to 1930 census.
[2] Figures not shown for cities not reporting in 1929, nor for cities having less than 50,000 estimated population that year.
[3] Percent not shown where number of minors was less than 50 in 1929 or 1931 nor where figures were not available or not comparable.
[4] Includes only 16-year-old minors; law does not require certificates for minors of 17 years of age.
[5] Number of girls to whom regular certificates were issued; law does not require certificates for boys of these ages.

In a comparable group of States and cities reporting for 1929, 1931, and 1932, the number of certificates issued to minors of this age group decreased 23 percent in 1932 from 1931, and 53 percent from 1929. This decrease is smaller than that shown in the certificates issued to 14- and 15-year-old children. The decrease in 1932 from 1931 in the number of certificates issued to 16- and 17-year-old minors in the 4 States reporting varied from 9 percent in New York to 59 percent in Oregon; in the cities in other States the decrease ranged from 5 percent in Lowell, Mass., to 67 percent in Saginaw, Mich. As was to be expected, few cities (only 4) reported an increase in the number of certificates issued to minors 16 and 17 years of age.

Education of Children Going to Work

Fourteen- and fifteen-year-old children.—Of the 37,967 children reporting grade completed in 1932, 64 percent had completed the eighth or a higher grade. In a number of States this grade standard is required by law before children 14 and 15 years of age can obtain a certificate for regular, full-time work. In a few States it is required only for 14-year-old children, and in others neither 14- nor 15-year-old children are required to come up to this standard. Ninety-four percent of the children receiving certificates in the States in which completion of the eighth grade is required for 14- and 15-year-old children, had complied at least with this requirement, as compared with 47 percent of the children receiving certificates in the States having a lower grade standard for children of this group. In the latter group of States 30 percent had not gone beyond the sixth grade, and only 14 percent had had one year of high school, whereas in the former group only 2 percent had failed to complete a grade higher than the sixth and 35 percent had had some high-school education. In the States and cities that reported grade completed by boys and girls separately 68 percent of the girls as compared with 60 percent of the boys had completed the eighth or a higher grade before obtaining their work certificates.

As probably very few of these young persons go back to school after they have once left for full-time work, it is encouraging that each year since 1927 the percentage of children completing at least the eighth grade in a comparable group of States and cities has steadily increased (59 percent in 1927, 61 in 1928, 63 in 1929 and 1930, 65 in 1931, and 67 in 1932). This trend is no doubt due in part to the raising of legal standards and, at least in recent years, to lack of work opportunities, but it also reflects a tendency to keep children in school longer and in this way to prepare them better for their future work and for citizenship. The record year by year for all States and cities reporting is shown in table 5.

TABLE 5.—PERCENT OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES WHO HAD COMPLETED EIGHTH OR HIGHER GRADE CLASSIFIED ACCORDING TO MINIMUM LEGAL SCHOOL STANDARD, 1927–1932 (IN STATES AND CITIES OF 50,000 OR MORE POPULATION[1] REPORTING)

State and city and minimum legal school standard	1927	1928	1929	1930	1931	1932
Eighth grade for children 14 and 15						
District of Columbia	97	94	95	98	99	94
Illinois:						
Chicago	[2] 66	[2] 70	[2] 84	100	100	100
2 cities (Peoria, Springfield)	[2] 63	[2] 71	[2] 78	100	(3)	(3)
3 cities (East St. Louis, Decatur, Rockford)	(4)	(4)	[2] 65	100	(3)	(3)

See footnotes at end of table.

TABLE 5.—PERCENT OF CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES WHO HAD COMPLETED EIGHTH OR HIGHER GRADE CLASSIFIED ACCORDING TO MINIMUM LEGAL SCHOOL STANDARD, 1927-1932 (IN STATES AND CITIES OF 50,000 OR MORE POPULATION REPORTING)—Contd.

State and city and minimum legal school standard	1927	1928	1929	1930	1931	1932
Eighth grade for children 14 and 15—Continued						
Indiana	100	100	100	100	100	100
Kansas	92	88	96	91	(3)	(3)
Minnesota	100	100	100	99	99	(3)
Oregon	(4)	100	(4)	(4)	(4)	80
Portland	(4)	(4)	100	100	(4)	79
Eighth grade with exemptions for children 14 and 15						
Delaware: Wilmington	77	67	68	59	70	81
Maine [5]	[6] 70	100	100	98	(3)	(3)
Rhode Island: Providence [5]	(4)	44	46	44	53	60
Utah: Salt Lake City	(4)	(4)	(4)	76	(3)	(3)
Vermont	(3)	34	26	(3)	(3)	(3)
Wisconsin	82	85	100	91	88	100
Milwaukee	83	87	100	92	90	100
Eighth grade with or without exemptions for 14-year-old children only						
California:						
San Francisco	99	83	66	75	77	(3)
2 cities (Sacramento, Oakland)	87	84	[7] 73	89	(3)	(3)
New Jersey:						
9 cities (Atlantic City, Bayonne, Camden, East Orange, Elizabeth, Hoboken, Irvington, Paterson, Union City)	(4)	(4)	(4)	(4)	(4)	59
New York:						
New York City	67	69	72	70	73	74
Buffalo	62	60	61	59	62	65
3 cities (Niagara Falls, Rochester, Yonkers)	62	61	59	65	63	73
Syracuse	57	(4)	58	44	50	58
5 cities (Albany, Binghamton, Schenectady, Troy, Utica)	(4)	(4)	56	49	50	53
2 cities (Mount Vernon, New Rochelle)	(4)	(4)	(4)	61	67	66
Washington: Seattle	(4)	(4)	(4)	(4)	(4)	76
Less than eighth grade for children 14 and 15						
Alabama	27	32	(4)	32	22	35
2 cities (Birmingham, Mobile)	33	37	(4)	43	36	(3)
Colorado: Denver	58	47	41	56	51	(3)
Connecticut	57	57	56	52	50	55
5 cities (Bridgeport, Hartford, New Britain, New Haven, Waterbury)	60	60	61	57	52	55
Kentucky	36	(4)	37	32	37	40
2 cities (Covington, Louisville)	39	(4)	36	39	40	50
Maryland: Baltimore	35	35	32	34	35	34
Massachusetts:						
2 cities (Lowell, Somerville)	44	42	43	44	41	37
Boston	(4)	58	56	61	61	62
2 cities (Fall River, Lynn)	(4)	(4)	35	37	37	46
Lawrence	47	(4)	(4)	(4)	59	65
Springfield	(4)	(4)	(4)	58	60	66
4 cities (Holyoke, Medford, New Bedford, Newton)	(4)	(4)	(4)	(4)	(4)	39
Michigan:						
Detroit [5]	58	53	60	80	63	66
2 cities (Hamtramck, Kalamazoo) [5]	(4)	58	77	(3)	(3)	(3)
Grand Rapids [5]	(4)	(4)	64	60	(3)	(3)
Missouri: Kansas City	75	79	(4)	80	86	(3)
New Hampshire: Manchester	(4)	(4)	(4)	(4)	(4)	100
North Carolina	(4)	(4)	15	13	17	18
Pennsylvania:						
Philadelphia	31	34	37	38	39	43
Pittsburgh	40	43	43	43	45	47
3 cities (Erie, Harrisburg, Scranton)	36	35	40	35	43	43
7 cities (Allentown, Altoona, Bethlehem, Chester, McKeesport, Reading, York)	(4)	(4)	(4)	(4)	(4)	56
Tennessee:						
Chattanooga	21	25	(4)	28	(3)	(3)
2 cities (Knoxville, Nashville)	(4)	20	17	25	16	25
Memphis	(4)	(4)	(4)	42	43	38
Virginia:						
Richmond	(4)	(4)	27	26	27	(3)
Roanoke	(4)	(4)	(4)	(4)	(4)	14
West Virginia:						
2 cities (Huntington, Wheeling)	(4)	(4)	39	43	(4)	(3)

[1] Population according to 1930 census.
[2] No eighth-grade requirement prior to July 1, 1929.
[3] Percent not shown because number of children was less than 50.
[4] No report.
[5] Practically all 15-year-old children; minimum age for certification under the law is 15 years, but certificates were issued to a few 14-year-old children under special circumstances.
[6] No eighth-grade requirement prior to 1928.
[7] Sacramento only; no report for Oakland in 1929.

Sixteen- and seventeen-year-old minors.—The 1932 reports show that in the 16- and 17-year-old group, as would be expected, the percentage (77) that had completed the eighth or a higher grade was larger than in the 14- and 15-year-old group.

Sex of Children Going to Work

In the group of States and cities reporting for the 6-year period, the proportion of employment certificates issued to boys 14 and 15 in 1927 was 57 percent of the total number issued to this age group as compared with 50 percent in 1931. This decrease continued in 1932, when the proportion of girls exceeded the proportion of boys (table 6). In all probability this is due largely to the serious unemployment in manufacturing and mechanical industries and the tendency to displace older workers in domestic service by young girls.

TABLE 6.—PERCENTAGE OF BOYS AND GIRLS 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES IN STATES AND CITIES OF 50,000 POPULATION AND OVER [1] REPORTING EACH YEAR, 1927 TO 1932

Year	Percent of employment certificates issued to—	
	Boys	Girls
1927	57	43
1928	56	44
1929	56	44
1930	55	45
1931	50	50
1932	48	52

[1] Population according to 1930 census.

In the 16- and 17-year-old group of minors reported in 1932, 52 percent were girls. Over the 6-year period, 1927 to 1932, the same tendency to shift from boys to girls is apparent as in the younger group.

Occupations Entered by Children on First Going to Work

Occupations of 14- and 15-year-old children.—The 1932 figures show the continued trend of employment of children 14 and 15 years of age away from manufacturing and mechanical occupations and toward the more or less unregulated occupations, including domestic and personal service (table 7). The probability is that this trend is even greater than indicated, because in a large number of States no certificates are required for agriculture, street trades, and work in private households.

TABLE 7.—PERCENTAGE OF 14- AND 15-YEAR-OLD CHILDREN RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES BY OCCUPATIONAL GROUPS IN STATES AND CITIES OF 50,000 POPULATION AND OVER [1] REPORTING EACH YEAR, 1927 TO 1932

Year	Percent of children receiving employment certificates in—					
	Manufacturing and mechanical occupations	Mercantile occupations	Domestic and personal service	Messenger and delivery service	Other occupations	All occupations
1927	39	21	14	16	11	100
1928	35	17	18	17	12	100
1929	38	17	14	17	14	100
1930	30	19	23	17	11	100
1931	30	17	29	14	11	100
1932	26	15	34	13	12	100

[1] Population according to 1930 census.

In a comparable group of States and cities the number of children entering manufacturing and mechanical occupations decreased 82 percent from 1929 to 1932 and the number entering office and messenger occupations decreased 91 percent and 80 percent, respectively; on the other hand, there was only a 36 percent decrease in the number entering personal and domestic service. However, the decrease in gainful employment in domestic and personal service was probably considerably greater than this figure indicates because a large proportion of the children certificated for this type of work, during the last year, stayed at home to help their parents. In 1932, in those localities which reported home permits separately from those issued for employment in homes other than their own, 51 percent of all the certificates issued for domestic and personal service were reported to be for work at home.

In localities reporting for the 2 years 1931 and 1932, the difference between the types of work entered by 16- and 17-year-old minors was slight. However, over a period of 6 years the proportion of boys and girls entering manufacturing occupations decreased from 48 percent in 1927 to 18 percent in 1932; during the same period the proportion entering domestic and personal service increased from 16 to 40 percent. Thus the shift from manufacturing industries to domestic and personal service is even more apparent among these older boys and girls than among the 14- and 15-year-old children.

Evidence of Age

It is a basic principle of child-labor administration that the best possible evidence of age should be required to obtain a certificate, since the certificate is proof that the employer has complied with the age provision of the child-labor law. A birth certificate has always been recognized as the best possible evidence of age, and a baptismal record has been held second. Of the 55,223 certificates [6] issued on which the evidence of age was reported, 88 percent were issued on these two types of evidence. School records, however, were accepted in many instances. In 2 States and in 15 cities in 9 other States practically all the certificates were issued on this type of evidence. School records are reliable only when it is the practice to require a child entering school to produce a birth certificate. Only a very few certificates were issued in 1932 on the evidence of the parent's affidavit, which is not considered reliable, as parents frequently misstate a child's age in order to obtain his employment. The temptation to do this may be especially great during a time of scarcity of jobs.

Value of Employment-Certificate Reports

EACH year since 1921 the number of States and cities reporting to the Children's Bureau facts about the employment certificates issued has steadily increased. In 1920, reports were received from only 33 cities in 18 States and from the District of Columbia, whereas in 1932 reports either for the entire State or for certain cities in the State were received from 36 States and the District of Columbia. The States now cooperating with the Children's Bureau employed in 1930 according to the United States census approximately two thirds

[6] Evidence of age was reported for 14- and 15-year-old children and in 2 States for 16-year-old minors.

of the total number of boys and girls 14 and 15 years of age in the country at work in occupations for which certificates are required. With the increasing number of cities and States reporting and a uniform reporting system, the analysis of this material becomes more and more valuable in showing the trend of child labor in the United States between census years.

Even if complete, however, these reports could not be taken as a complete survey of child employment each year. It has already been pointed out that they omit large groups of children who enter occupations for which, in many States, no certificates are required, the principal ones being agriculture and street trades and in many States domestic service. Moreover, the reports received by the Children's Bureau of work certificates issued are for legal employment only, and furnish no evidence as to the number of children illegally employed.

Effect of N.R.A. Codes on Employment of Children

THE influence of the 16-year-age minimum in the codes set up by joint agreement under the N.R.A. will undoubtedly be brought out in the employment-certificate figures for 1933, even though the prohibition will have been in effect for only a few months during the year. These prohibitions also bring to the fore the necessity of some administrative machinery to enable employers to be certain that they are complying with the minimum-age standard. Requiring minors of 16 and 17 to obtain permits to work, as is now done in about a third of the States, is obviously the next step. In many of the States where legislation does not yet require employment certificates up to 18 years, the machinery now existing for the issuance of age certificates on request of employers could be utilized for this purpose.

OLD-AGE PENSIONS AND BENEFIT PLANS

Adoption of Old-Age Pensions in Ohio

AFTER about a decade of endeavor to secure an old-age pension system to provide for the indigent old people of Ohio, a referendum measure was submitted to the voters of that State in the November 7, 1933, election. The returns indicate that the measure passed by a vote of more than 2 to 1.

Under the system, pensions will be paid to persons aged 65 years or over. No method of financing has been devised so far.

Benefit Payments by Standard National and International Unions, 1932

THE benefit services of national and international trade unions for 1932 are shown in the accompanying table. The figures are taken from the report of the executive council of the American Federation of Labor to the 1933 convention of that organization and are given to the nearest dollar.

TABLE 1.—BENEFIT SERVICES OF STANDARD NATIONAL AND INTERNATIONAL TRADE UNIONS, 1932

Organization	Benefits paid for—						
	Sickness	Death	Unemployment	Old-age pensions	Disability	Miscellaneous	Total
American Federation of Labor						$1,659	$1,659
Actors	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Air-line pilots			$5,450				5,450
Asbestos workers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Bakery and confectionery workers	$111,812	$29,427				1,300	142,538
Barbers	195,670	100,680					296,350
Bill posters and billers			50,000			5,000	55,000
Blacksmiths and drop forgers		10,925					10,926
Boiler makers and iron-ship builders	[2] 2,508	[3] 282,828				550	285,885
Bookbinders	[4] 1,800	[5] 54,806	[4] 54,996	[4] $10	[4] $30	[5] 5,349	116,990
Boot and shoe workers	48,648	28,050			9,150		85,848
Brewery, flour, cereal, and soft-drink workers	8,103	6,122	4,170			15,050	33,444
Brick and clay workers		[5] 9,550					9,550
Bricklayers, masons, and plasterers		[5] 369,138	376,099	618,125			1,363,362
Bridge and structural-iron workers		49,950		142,160			192,110
Broom and whisk makers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Building-service employees	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Carmen, railway		123,000			13,650		136,650
Carpenters and joiners		584,285		870,090	44,700		1,499,075
Carvers, wood		8,400	[4] 8,128			[5] 1,306	17,834
Cigar makers		78,300			1,717		80,017
Clerks, post office	16,761	46,000					62,761
Clerks, railway	[4] 3,709	[5] 227,342				[4] 10,830	241,880
Clerks, retail		4,850					4,850

See footnotes at end of table.

TABLE 1.—BENEFIT SERVICES OF STANDARD NATIONAL AND INTERNATIONAL TRADE UNIONS, 1932—Continued

Organization	Benefits paid for—						
	Sickness	Death	Unemployment	Old-age pensions	Disability	Miscellaneous	Total
Cloth hat, cap, and millinery workers	$1,290		$6,780			$15,265	$23,335
Conductors, sleeping car		$15,000			$6,000	8,275	29,275
Coopers		3,000					3,000
Diamond workers	[5] 4,467	[5] 2,250				320	7,037
Draftsmen	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Electrical workers		341,492		$104,404			445,896
Elevator constructors			[4] 400,000				400,000
Engineers, locomotive		3,388,857	9,000,000	971,835	106,087	190,273	13,657,052
Engineers, operating		69,310				63	69,373
Engravers, metal	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Engravers, photo	52,205	135,217	1,945,457		4,771	181,410	2,319,060
Fire fighters		[4] 20,000					20,000
Firemen and enginemen, locomotive		1,123,136	171,190	602,275	1,073,067	34,520	3,004,188
Firemen and oilers		15,025				824	15,849
Foundry employees		700					700
Fur workers	4,389	3,550		4,160		25,912	38,011
Garment workers (united)		24,600					24,600
Garment workers, ladies'	17,000	3,050	24,100	8,100			52,250
Glass-bottle blowers		35,500					35,500
Glass cutters, window		4,500					4,500
Glass workers, flint		12,900				67,700	80,600
Glove workers			1,000				1,000
Government workers (federation of)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Granite cutters		58,567		8,935	4,293	2,151	[3] 73,945
Hatters		36,634					36,634
Hod carriers, building and common laborers	[4] 942	[5] 8,648	[4] 4,226	[4] 760	[4] 777	[4] 6,033	21,385
Horseshoers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Hotel and restaurant employees	[2] 36,810	[5] 34,913				30,907	102,630
Iron, steel, and tin workers		25,718				100,000	125,718
Jewelry workers	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Lathers, wood, wire, and metal		17,253					17,253
Laundry workers	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Leather workers	434	500	3,000				3,934
Letter carriers	317,186	346,192					663,378
Letter carriers, rural	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Lithographers	9,048	33,800	231,579	10,498			284,925
Longshoremen	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Machinists	242,432	30,000	182,100		6,500	38,000	499,032
Maintenance-of-way employees		231,697					231,697
Marble, slate and stone polishers	9,000	[4] 606	[4] 63,746	[4] 42	[4] 95	[5] 11,952	85,435
Masters, mates, pilots		[4] 1,250	[4] 370				1,620
Meat cutters and butcher workmen	13,337	37,150	20,377				70,864
Metal workers, sheet		56,850				4,165	61,015
Mine, mill, and smelter workers	6,333	2,958	496				9,787
Mine workers (united)		1,000,000					1,000,000
Molders	138,172	312,878	239,922		19,375		710,348
Musicians		[4] 162,000			[4] 23,095		185,095
Oil-field, gas-well, and refinery workers		2,100	3,000				5,100
Painters, decorators, and paperhangers		242,528	110,656		41,200		394,384
Paper makers		5,029				3,250	8,279
Patternmakers	4,015	[3] 8,000	22,367				34,382
Pavers, rammermen, etc	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Paving cutters		4,375	7,100			1,556	13,031
Piano and organ workers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Plasterers		51,525			4,000		55,525
Plumbers and steam fitters	163,805	140,112	750,000			29,692	1,083,609
Polishers, metal		9,650					9,650
Potters, operative	4,967	20,785				57,712	83,464
Powder and high-explosive workers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Printers, plate and dye stamping		11,000					11,000
Printing pressmen		[5] 1,152,396	[5] 3,102,141				4,254,537
Pulp, sulphite, and paper-mill workers			600			3,063	3,663
Quarry workers		3,624	1,744	1,450			6,818
Railroad trainmen	518,191	2,917,865		805,536	2,176,269	66,476	6,484,337
Railway conductors	167,096	1,130,400			298,391	6,960	1,602,847
Railway employees, street and electric	[4] 76,205	[5] 909,712		168,800	23,600		1,178,317

See footnotes at end of table.

TABLE 1.—BENEFIT SERVICES OF STANDARD NATIONAL AND INTERNATIONAL TRADE UNIONS, 1932—Continued

Organization	Benefits paid for—						
	Sickness	Death	Unemployment	Old-age pensions	Disability	Miscellaneous	Total
Railway mail employees		$93,291			$109,970	$10,352	$213,613
Roofers, damp and waterproofing workers	$6,000	11,400					17,400
Sheep shearers	1,161	1,000		$1,850		75	4,087
Siderographers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Stage employees and moving-picture machine operators		98,178					98,178
Stereotypers and electrotypers	[4] 10,152	[5] 104,454	[4] $680,072		[4] 5,303	[5] 13,805	813,786
Stonecutters		22,700				1,100	23,800
Stone mounters		6,000					6,000
Switchmen		155,350			34,850	14,875	205,075
Tailors	5,032	6,011	1,675				12,718
Teachers	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Teamsters, chauffeurs, and stablemen						64,310	64,310
Telegraphers, commercial		2,590					2,590
Telegraphers, railroad	7,080	298,267					305,347
Textile workers (united)		3,200					3,200
Tobacco workers	2,744	400					3,144
Typographical union	[4] 96,014	[5] 621,397	[4] 2,247,966	[4] 1,829,272		[5] 272,678	5,067,327
Upholsterers		30,000	250,000			10,000	290,000
Wall-paper crafts	[4] 3,200	1,500	[4] 50				4,750
Weavers, wire	323	200				25,460	29,983
Total	2,308,040	17,674,384	19,970,557	6,148,302	4,006,891	1,340,175	51,448,349

[1] No international benefits.
[2] Includes old-age pensions.
[3] Includes disability benefits.
[4] Paid by local unions.
[5] Includes local union benefits.
[6] No report received.

The expenditures for the various types of benefits for 1932 as compared with the 3 preceding years are reported in table 2. The outstanding feature of this table is the tremendous increase in the sums spent for unemployment relief, rising in the 4-year period from about one quarter of a million dollars to over $19,970,000.

TABLE 2.—BENEFITS PAID BY NATIONAL AND INTERNATIONAL TRADE UNIONS, 1929–32, BY TYPE OF BENEFIT [1]

Type of benefit	1929	1930	1931	1932
Sickness	$2,831,937	$3,649,703	$2,220,975	$2,308,040
Death	17,598,287	18,527,095	17,132,023	17,674,384
Unemployment	276,718	3,311,280	9,146,724	19,970,557
Old-age pensions	4,883,028	5,910,995	6,090,743	6,148,302
Disability	2,707,188	3,234,067	3,671,380	4,006,891
Miscellaneous	3,945,288	2,064,840	1,700,028	1,340,175
Total	32,242,446	36,697,980	39,961,873	51,448,349

[1] Figures are given to the nearest dollar. Statistics for 1929, 1930, and 1931 were taken from previous reports of executive council.

HEALTH AND INDUSTRIAL HYGIENE

Industrial Health Discussions at the American Public Health Association Convention, 1933

THE 1933 convention of the American Public Health Association was held at Indianapolis, Ind., October 9–12. It is significant of the increasing interest in the health of the workers as related to their occupations that four sectional meetings were devoted to industrial hygiene, and others were projected but were not carried out as some of the members were unable to attend because of the depression. This brief report represents the information gleaned by attendance at these sessions, copies of the papers on most of the subjects not being available, and the report, therefore, does not aim at being a complete summary of the sessions.

The subjects considered in the industrial hygiene sessions covered a fairly wide field, but the emphasis was upon problems connected with the development of silicosis among workers subjected to exposure to silica dust in various industries. Other subjects discussed at the different sessions included industrial dermatoses, poisoning by petroleum distillates, cyanide poisoning, effects of exposure to carbon tetrachloride, particularly its effects upon the eyes, pulmonary asbestosis, and a new X-ray mass procedure for the discovery of early tuberculosis in industry.

Discussion of Silicosis and Tuberculosis

SILICOSIS in both its acute and chronic forms is the industrial disease in which there is perhaps the most widespread interest at the present time, from the standpoint both of the seriousness of the disease and of its importance in the field of workmen's compensation.

Dr. Clayton S. Smith, from the Laboratory of Physiological Chemistry and Pharmacology, Ohio State University, Columbus, Ohio, spoke on the silica content of the lungs of a group of tunnel workers engaged in excavating a tunnel in New River, W.Va., about 40 miles from Charleston. In addition to the use of roentgenograms in diagnosing these cases, Dr. Smith stated that chemical examination of the lungs after death, used to confirm the diagnosis, is valuable in compensation claims. The rock in which these men were working was 98 to 99 percent quartz, and most of the men were employed from 12 to 18 months. The working conditions were very bad, with dry drilling and no measures taken to prevent dust, so that the men inhaled immense amounts of the silica dust. The ventilation also was very poor and a large number of the men were gassed at different times. Shortly after the work began, many of the men developed bronchitis and pneumonia, with a very high death rate. After about

a year, many of the workers were incapacitated and others developed shortness of breath, tired easily, and had dry unproductive cough. The chief symptom of several shortly before death was the difficulty in getting their breath.

Silicon dioxide (SiO_2) and silicates are the constituents of rock dust which cause silicosis. It was said that most of the silica dust particles which are inhaled are smaller than one eighth of a red blood cell.[1] The results of the inhalation of the silicon dioxide or silicates is now generally believed, the speaker stated, to be due to chemical action of the dust in the lungs.

In the examination of specimens of the lungs of persons diagnosed as having had silicosis, the lung is reduced to ash, if as much as 1.6 percent of the dried lung substance is silicon dioxide, the case is regarded as having been silicosis. The speaker pointed out that some silica is present in the lungs of all adults, the amount increasing with increase in age. The lungs of nine of these workers were analyzed and it was found that the silica content of the dried lung ranged from 1 to 2 percent.[2]

Dr. Leroy U. Gardner, director of Saranac Laboratory for the Study of Tuberculosis, Saranac Lake, N.Y., spoke on the pathological lesions in so-called acute silicosis. He reported on examinations of 3 sand blasters (white), 9 tunnel workers (colored), and 3 sand pulverizers (young Negroes). It was not known whether there had been any previous exposure to silica dust in these cases, but since the group as a whole was so young (one half under 30 years), it was not considered probable that they had had much previous exposure. The tunnel workers had been exposed to quartzite dust and the sand workers to Cape May sand. All these men died within 21 months of stopping work, many of them within 9 months. In 11 cases there was acute tuberculosis, 2 others were considered probably tuberculosis, and 2 died of nontubercular pneumonia. None of these cases showed silicosis but 2 were suggestive. The characteristic type of silicosis, Dr. Gardner said, shows early involvement of lymph nodes at base of lung and large nodules scattered throughout the lung, but these cases did not show this picture. In all these cases there was heavy involvement of the lung, involving the bronchi and blood vessels, diffuse fibrosis in alveolar walls, and increasing size of connective tissues at expense of the air spaces. All the tunnel cases and most of the others died of infectious processes and this was accounted for by the fact that there were so many young Negroes, who are particularly, susceptible to tubercular infection. Dr. Gardner stated that tubercle bacilli frequently cannot be found in silicosis complicated with tuberculosis.

In the discussion Dr. Hollister commented on the bad working conditions among the West Virginia tunnel workers. He stated that it was his opinion that any person exposed to silica dust is liable to develop tuberculosis.

Dr. Hayhurst stated that he has been rather against associating tuberculosis with silicosis, on the ground that tuberculosis is not more prevalent among any group of silicotics than in any average industrial group. The report of these cases, he said, would cause him to

[1] The diameter of the dust particles is usually given in microns (one micron = 1/25400 inch), the dangerous sizes being regarded as between 0.25 micron and 10 microns.

[2] A report by A. F. Sladden on the silica content of lungs published in The Lancet, July 15, 1933, states that "fibrosis of an important extent, clearly contributory toward death, is usually present when the silica content exceeds 1.0 percent."

modify his views somewhat, but he was still not convinced. He believed the cause of death in these cases was not tuberculosis, and that some of the infections were not tubercular. He was struck with the suddenness of death in these cases. He also thought the series of cases reported by Dr. Gardner showed a higher proportion of tuberculosis than he would expect.

In closing the discussion, Dr. R. R. Sayers (chairman of the section), said that a more uniform terminology in description of silicosis cases was needed, and also better reading of X-rays. (A showing of X-ray pictures in the afternoon, which included many pictures from the South African gold mines as well as many taken in this country, brought out the differences in reading, particularly between the British and the American physicians.)

Dr. Homer L. Sampson, director of Trudeau Sanatorium, Trudeau, N.Y., presented a series of X-rays showing the findings in so-called acute silicosis. He pointed out one case particularly in which there was little evidence of silicosis and no bacilli, and stated that it was his opinion this was unresolved silicosis.

The question of latent tuberculosis was brought up by another physician, who stated that if no pulmonary lesion has developed by the age of 25, it is very unlikely it will develop later in life. It was his opinion that some of these cases of silicosis have had tuberculosis for some years—10 to 15 or more—and he thought it probable that tuberculosis and silicosis modify each other so that it affects the X-ray picture.

Dr. Gardner stated it is difficult to find the bacilli when tuberculosis is superimposed on severe silicosis. He agreed with Dr. Hayhurst that tuberculosis was not the whole story in the cases he reported, but believed it was the actual cause of death. He thought in the case of the tunnel workers that it was not the reactivation of old lesions, but that these workers had never had such infection and therefore had no immunity, which accounted for the rapid course of the disease. It was his belief that in such cases the following points may be accepted:

1. In cases exposed to silica in which there is no childhood infection, tubercular infection which would not develop at all in ordinary individuals develops rapidly in silicotics.

2. Apical lesions which indicate the tuberculosis was latent when the individual went into the work are activated by exposure to silica.

3. In cases where there are old apical scars, there is no activation, and he questioned whether there would ever be. As such persons are relatively immune to exposure to tuberculosis, he raised the point whether such persons might not be put into silica industries but said the question was not yet decided.

Dr. Gardner mentioned the several rapidly fatal cases in making scouring powder which have been reported recently stating he thought most of the cases were tubercular. He said he was not yet prepared to accept the theory that alkali present in the scouring powders hastens or causes the development of the disease.

The second session on industrial hygiene dealt with poisoning by petroleum distillates, treatment of cyanide poisoning, dermatitis in the oil-refining industry, and toxic amblyopia and accompanying physiological disturbances in carbon tetrachloride intoxication.

Poisoning by Petroleum Distillates

DR. EMERY R. HAYHURST, consulting industrial hygienist, Columbus, Ohio, reported on a series of cases of poisoning by various thinners and dryers of various boiling points, including naphtha, gasoline, petroleum ether, petroleum distillate, etc.

The first series of cases included six men employed in the enameling department of an automobile plant, cleaning fenders, cowls, etc. This series of cases began in 1922. The symptoms among these men included boils, rapid pulse, great loss of strength, and gradual loss of weight, resulting in total or partial incapacity for work. One man died; but he was subject to a lead hazard also, so the cause of death was a complication of poisons. The second series of cases included eight men employed in staining shingles, using kerosene and petroleum naphtha, together with the use of some creosote on dark shingles. The symptoms in these cases included itching, dizziness, diarrhea, rapid pulse, slight temperature, and infections of the upper respiratory tract, resulting in incapacity for work. The next series resulted from exposure to pure naphtha. One girl who worked in an art works, cleaning trays, which were to be enameled, by dipping them in gasoline, had headaches and dizziness and after a month developed an acute throat. She afterward went back to work for a few days, when she collapsed physically and mentally, lost 80 pounds, and finally could not talk. She finally began a slow recovery and now is able to work at other employment. In these cases, in addition to the symptoms mentioned, there is lethargy, effort syndrome, blind spells, and mental dullness, and headache is a general symptom. The loss of weight ranges from 10 to 60 percent, and there is increased pulse rate to 120 to 130. Other general symptoms include marked anemia, skin irritation, rashes and boils, neuritis, continuous sensation of itching and burning, muscular twitchings, slight jaundice. In these cases the duration of disability is related to the duration of exposure. There is a question in these cases whether there is complete recovery. Work which causes wetting of the skin—that is, when the hands and forearms are immersed in the liquid—causes the worst symptoms and this contact with the fluid also causes wasting of the muscles. It was stated that about 40 percent of workers who worked 10 months or more developed symptoms. Asked about preventive measures, Dr. Hayhurst said that rubber gloves could not be used as they disintegrated; and vaseline was no use, but that certain patent creams were of some value.

Dr. Sayers said there was much more experimenting to be done and he believed that selection of workers was important. Dr. Hayhurst stated, however, that the percentage developing symptoms was so high that it showed more than individual susceptibility.

Treatment of Cyanide Poisoning

DR. K. K. CHEN of the Lilly Research Laboratories, Indianapolis, Ind., reported on a new treatment for cyanide poisoning which up to the present has been used only in experiments on dogs. Interest in treatment of this type of poisoning, which is rapidly fatal, has been stimulated by the recent report of Geiger of San Francisco of the successful treatment of cyanide poisoning with methylene blue.

Cyanide poisoning may arise from suicides, homicides, ship and house fumigation, photography, electroplating, gilding, and accidents caused by taking cyanide preparations—bitter almonds, arrowgrass, or certain mushrooms. Since 1909 there have been from 79 to 243 deaths annually in the United States from this cause. The remedy proposed is amyl or sodium nitrate supplemented with sodium thiosulphate used intravenously, which it was said has been shown in the experiments to be 5 or 6 times as effective as methylene blue. The speaker said if this form of treatment proves to be as beneficial to men as to dogs, it may be expected to save an adult individual who has taken 32 grains of potassium cyanide or a pound of bitter almonds. The remedy was found to be effective if the dogs were breathing at all.

Skin Diseases in Oil Distilleries

DR. LOUIS SCHWARTZ, United States Public Health Service, New York City, reported a study covering 11,000 employees in oil distilleries, of whom about 4,500 were examined. Among these workers there were 196 cases of dermatitis occurring in a 2-year period. The cases included acne, skin papilloma, and skin cancer. The oil acne may occur on various parts of the body, particularly hands, arms, and legs. There were 12 cases of skin cancer in the series. It was said that there was not much which could be done to prevent the occurrence of these lesions, but that extreme cleanliness on the part of the workers was very important and therefore shower baths should be provided.

Visual Disturbances Due to Carbon Tetrachloride

A PAPER on visual and physiological disturbances resulting from carbon tetrachloride intoxication was read by Dr. Z. T. Wirtschafter, Cleveland, Ohio. He said that toxic amblyopia is an ocular condition which is characterized by dimness of vision and alteration of the color fields. The speaker reported five cases of carbon tetrachloride poisoning in workers in the dry-cleaning industry, in all of which there was evidence of visual effects upon examination of the eyes, although two had not suffered from visual disturbances. The symptoms appeared in most cases after a few days' exposure. The symptoms reported included vertigo, headaches, vomiting, disturbance of the sense of taste, and disturbance of vision. The speaker said that continued exposure to carbon tetrachloride causes liver necrosis. In all the cases the ocular condition returned to normal after the men left their work and were put on a high calcium and dextrose diet.

Occupational-Disease Legislation

THE first paper in the third industrial hygiene session, by Andrew I. Farrell, attorney, Chicago, was on the subject of occupational disease legislation. The speaker stated that he believed the payment of compensation by capital tends to reduce occupational disease. As the question of whether or not the disease was contracted in previous employment is of great importance, it was his opinion that physical examination and X-rays were necessary at the beginning and end of employment with each firm, and at the conclusion of any contract

there should be a complete record made showing the condition of the employee and any compensation paid up to that time. He stated that the average practitioner is not capable of making a proper examination and thought, therefore, that doctors making these examinations should have special training, especially in taking X-rays. He considered classification of accidents comparatively simple when compared with disease. The small employer is a problem from the compensation standpoint, he said, since he cannot afford to pay for examinations, and also he may go out of business at any time. Payment must be made by industry, whether large or small enterprises, and the small employer must therefore carry insurance. During the past few years, he stated, many proposed occupational-disease acts failed of enactment because they were not properly prepared. He said the bills should be properly drawn up, that is, they should be clear and concise, and accepted by both employers and labor before being introduced. In closing he said that he thought all States will have occupational-disease legislation within 10 years.

Pulmonary Asbestosis

THE second paper of the session, by Dr. John Donnelly, superintendent of Mecklenburg Sanatorium, Huntersville, N.C., dealt with a series of cases of pulmonary asbestosis contracted in mills manufacturing asbestos. He said some occupations in an asbestos mill cannot possibly escape inhalation of the dust, but the carding and weaving rooms present the worst hazard. Dr. Donnelly stated that although the first case of asbestosis was reported in the medical literature in 1900, no other was reported until 1924, and it is only in the last 10 years, therefore, that the disease has gained prominence. The disease is characterized by asbestosis bodies in the sputum which vary from golden yellow to dark brown in color and react to the test for iron. These bodies, which are of many different forms, have a center composed of asbestos fibers. The speaker stated that few cases of asbestosis are complicated by tuberculosis, and he has not found that it tends to activate preexisting tubercular lesions. The symptoms include loss of appetite, loss of weight, chest pains due to involvement of the pleura, and extreme dyspnea (difficult breathing). There is a comparatively slight rise in temperature. The dyspnea, which is the disabling symptom, may progress after leaving employment and there is muscular atrophy over the chest. The physical signs are quite similar to silicosis. Broncho-pneumonia is a serious complication. In the X-rays the lesions are not so dense as in silicosis and even the most severe cases do not show such a definite picture as does silicosis. During the past 4 years Dr. Donnelly reported he had had 15 cases referred to his clinic and all but 3 have shown some evidence of asbestosis. All of these persons are still living although disabled. The asbestosis bodies were found in the sputum in only one instance. One of these employees had worked for 18 months with no protective devices. In three cases which he reported there had been no improvement in the condition of the patients. These cases, the speaker said, show that exposure to the dust results in rapid progressive involvement of the lungs. The protective devices, he stated, are usually inefficient.

In the discussion one physician stated he had had several cases which came to autopsy and tuberculosis was found. Dr. Donnelly

said that all his cases were bilateral, and the X-rays showed that mottling of the lungs appears first and is followed by the development of fibrosis. He pointed out three characteristics of the pictures, namely, a "shaggy" heart line, fibrotic changes, and the pleuritic involvement. He said he thought infection in these cases could be ruled out because the rise in temperature is so small.

Dangers of Use of Colloidal Thorium in X-rays

THE third paper of the session, presented by Dr. R. Pomeranz, associate roentgenologist of Beth Israel Hospital, Newark, N.J., treated of the dangers in the intravenous use of colloidal thorium, which is used in the blood stream in the taking of roentgenograms to make the parts clearer. It has been used subcutaneously in cavities, such as the sinuses, intraperitoneally, and intravenously. In its first use, subcutaneously, it worked so well that the users overlooked its dangers. The effects of the use of colloidal thorium are similar to the effects in the famous radium poisoning cases in New Jersey in a dial-painting plant, radioactivity of the organs developing which result in malignant tumors. The intraperitoneal injection he said was not so dangerous but general intravenous use should be condemned, although it might be used when the expectation of life is 3 years or less.

New X-ray Mass Procedure

THE last paper of the session, by Dr. Margaret W. Barnard, medical director, Bellevue-Yorkville Health Demonstration, New York City, dealt with a new mass procedure for the discovery of early tuberculosis in industry. Under this method a special paper film is used and it is possible to X-ray 150 persons in an hour. Dr. Barnard told of a survey in 1931 of persons receiving relief in New York City. Ten thousand persons were X-rayed in 6 weeks and the readings were completed in 2 more weeks. In these industrial areas a rate of from four to six times the normal tuberculosis rate was found. The results show the importance of finding tuberculosis, especially in adults.

Occupational-Disease Compensation

THE report of the committees on standard practices in the problem of compensation for occupational diseases and for pneumonoconiosis were given at a special luncheon meeting.

The first committee reported that, because of increasing litigation for silicosis under common law, wide publicity has been given to the effects of dust on the respiratory system. There has been a trend toward the discontinuance of employers' liability clauses included in regular policies because of these civil suits for damages. In Pennsylvania there has been a trend toward self-insurance, so as to keep control of occupational-disease cases more closely in the hands of employers.

Most of the compensation bills introduced in the legislatures pertain to dust diseases. Such bills have been presented in the States of New York, New Jersey, West Virginia, and South Carolina. In Michigan a bill has been proposed for the compensation of certain listed occupational diseases, including stone worker's or grinder's

phthisis, pneumonoconiosis, and silicosis. Similar bills in New Hampshire and Pennsylvania included silicosis, while Illinois is planning to revise and broaden the present occupational-disease act. Bills for the compensation of occupational diseases by general coverage rather than by schedule lists have been presented in Michigan, Minnesota, New York, Ohio, and Pennsylvania.

A report by the medical committee of the Pennsylvania commission on compensation for occupational diseases recommends the establishment of a medical board consisting of three well-qualified physicians as an integral part of the administrative body. The legal committee of the same commission suggested that this medical board should assume a judicial function by hearing evidence and passing on it in a judicial manner. The committee on standard practices, however, is opposed to such procedure.

In conclusion the report states that it supports the principle "that the arbitration and settlement of compensation claims must be an administrative matter and not one subject to legal action. This is based on a consideration of the whole principle of workmen's compensation as social insurance and not as damages. It is a method of distributing the economical losses of the smaller number who are exposed to accident and health hazards among the larger number of consumers who buy the product of their labor. In other words, the principle of insurance as a social remedy for these social evils has replaced the inadequate and ineffective remedy supplied by private philanthropy and public relief. Since there is no longer a question of damages or negligence involved, legal action and legal methods would certainly seem unnecessary and undesirable."

The report of the committee on pneumonoconiosis reviewed the methods by which silicosis and other pneumonoconioses are included as compensable diseases in the laws of various countries, States, and Provinces throughout the world. These methods are: By implication from the general wording of the workmen's compensation act regarding injuries covered which is the case in certain States in this country; by listing in a schedule the compensable occupational diseases covered by the act; by a clause in the act providing for special schemes to be drawn up for the compensation of silicosis; by special act; and in a few laws by a combination of these methods.

In regard to the problem of compensation for silicosis the committee states that it is clear this is the type of disease where the definition of disability is obscure. "Many cases which could keep at work, if necessary for economic reasons, can be honestly and actually disabled with demonstrative objective signs of the disease if that pressure is removed through the payment of compensation." Medical advice is necessary, it is said, to determine when the worker's condition has reached a point where exposure to dust jeopardizes his future working capacity and when his health is impaired to a degree which constitutes disability.

The preventive measures taken to control the source of the dust are, in reality, the most important factor in the control of this disease. Without medical and engineering preventive measures, any attempt to control the situation through some means of financial relief or adjustment seems, as far as is known at present, to be doomed to failure.

Pulmonary Asbestosis

AN ARTICLE on the clinical, radiological, and pathological features of pulmonary asbestosis by Dr. Philip Ellman, published in The Journal of Industrial Hygiene, July 1933, presents evidence of the greatly increased risk of tuberculosis among persons suffering from asbestosis. Until recently it has been rather generally believed that complication of tuberculosis with asbestosis was somewhat rare and that this was a significant difference from the situation as regards silicosis, in which the danger of the development of tuberculosis has been fully recognized.

The writer, who is in charge of a tuberculosis and chest clinic in London, presents his findings in a series of cases under his care. The clinical features of the disease are given as the slow development of a characteristic type of fibrosis in which the patient may be comparatively free from symptoms for several years, usually from 5 to 15, although the writer had had cases following exposure of 1 to 3 years or less. The delayed effects of exposure to asbestos dust are also pointed out, in some cases years elapsing after the worker has left the industry before the occurrence of symptoms. The chief symptoms are dyspnea (difficult breathing), which is one of the earliest evidences, occurring at first only on exertion; cough of a harsh, nonproductive character often associated with fleeting chest pains; loss of appetite, cyanosis, amounting in these cases to a pronounced deadening of the skin, varying from mild bronzing to slight blueness; emaciation, with a loss of weight out of all proportion to the physical signs; and clubbing of the fingers in the more advanced cases. Asbestos corns form a characteristic skin lesion. These are produced by asbestos fibers which penetrate the skin and form corns on the hands and arms and even the legs. No asbestosis bodies are found in these corns such as are frequently present in the sputum of persons suffering from asbestosis.

Upon examination the chest shows limited expansion, even below 1 inch, the movement being especially limited at the bases, where the fibrosis commences. The fibrosis extends upward in the more advanced cases, but is usually confined to the lower and middle zones of the lungs, and the apices are frequently retracted.

Radiography, which the writer thinks the most reliable diagnostic aid, generally discloses the presence of a fine diffuse fibrosis. The writer states that he has observed roughly four stages in the progression of the disease, characterized by changes in the degree of mottling throughout the four stages and the development in the third stage of definite evidence of pleural involvement. The mottling, which is of a fine punctate character, stands out in definite contrast to the coarse nodular mottling seen in silicosis. This mottling has been described by one writer as presenting a "ground glass" appearance and by another as "the veiled appearance" of the involved zone. When tuberculous infiltration complicates asbestosis, it can usually be detected and distinguished from the underlying fibrosis just as in cases of silicosis.

The highly characteristic golden-yellow asbestosis bodies found in the sputum and fibrosed lungs of asbestos workers have bulbous enlargements at the extremities somewhat resembling dumbbells and have been found by various observers to vary in length from 20 to over

200 microns.[1] An asbestos fiber forms the core of each body and the golden-yellow material covering each fiber contains an iron substance derived from body tissues. The writer stated these bodies were found at all autopsies upon cases of pulmonary asbestosis. The bodies are found either singly or in clumps in the lung tissue, but in the sputum they are usually found singly or in groups of 2 or 3. It is a remarkable fact that the asbestosis bodies persist in the sputum for years even after short periods of exposure.

Although the question of the complication of silicosis with tuberculosis has been rather an open one, it has been shown recently in animal experiments that silica and asbestos dusts belong to a group of active substances which produce lesions when introduced into the subcutaneous tissues. Both produce serious pulmonary fibrosis and both assist the growth of tubercle bacilli. Clinical evidence, the writer states, would seem to support this experimental work, as there is little doubt that an increasing number of cases of tuberculosis are being seen in persons exposed to asbestos dust. These cases, it is said, may not be met with in an examination of workers at work with no symptoms, but are found oftener among persons who have left work and are attending clinics. Thus an English investigator (E. R. A. Merewether) in 1930 found only 4 active cases of tuberculosis in an examination of 374 asbestos workers actually at work, while in 1931, 2 other investigators (Wood and Gloyne) were able to trace 12 cases of tuberculosis, 10 of which were active, in a series of 57 cases of asbestosis, and among 35 deaths from asbestosis reported by the British Chief Inspector of Factories in 1931 tuberculosis was a complicating or terminal factor in 11 cases. The writer states that among 17 of his own definite cases of asbestosis, the majority of whom were not at work, 6 had tuberculosis, 4 of these cases being active. He states that his own limited experience tends to show that tuberculosis, as a complication of asbestosis, is by no means uncommon, and that while the risk may or may not be equal to that in silicosis, the evidence quoted and his own observations appear to establish beyond a doubt that there is a risk. The existence of this risk leads him to conclude "that no person with tuberculosis in any form should be allowed to enter the industry, nor should any one in whom tuberculosis at a later stage is detected be permitted to continue in the industry. The risk here is to the other workers, as well as to themselves."

In regard to the probable course of the disease it is said the period between exposure to the dust and a fatal termination is only about one half of that of silicosis. The asbestos dust taken into the lungs produces the pulmonary fibrosis as the result either of actual mechanical trauma or of a toxic effect similar to that exerted by silica in cases of silicosis. The disease is a progressive one and, if sufficient dust is present, ends fatally, usually from some intercurrent complication such as acute broncho-pneumonia or phthisis. The difficult breathing present in persons with established cases of asbestosis is usually out of proportion to the clinical evidences of the disease, while in silicosis in general the dyspnea becomes manifest only upon exertion even in cases of advanced fibrosis. In conclusion it is said that pulmonary asbestosis is a progressive disease with a bad prognosis and that its treatment can be only symptomatic.

[1] Micron = 1/25400 inch.

Occupational Diseases Reported in Ohio, 1928 to 1932

THE Ohio Division of Industrial Hygiene which was established in 1913 was abolished in 1932 and its functions taken over by the newly-established Bureau of Occupational Diseases with Dr. Emery R. Hayhurst as consultant and acting chief. Dr. Hayhurst has supplied the report for the year 1932 showing the compensable diseases reported to the bureau for the 5-year period, 1928–32, as well as the reports of noncompensable industrial diseases during the same period.

The following table shows the number of cases of compensable diseases reported in Ohio for the years 1928–32. During these years no cases of anthrax or glanders were reported, or of poisoning from mercury, phosphorus, carbon dioxide, manganese dioxide, or radium.

COMPENSABLE DISEASES REPORTED IN OHIO, 1928 TO 1932

Disease	Number of cases reported				
	1928	1929	1930	1931	1932
Lead poisoning	180	183	134	114	148
Arsenic poisining		2	1	2	3
Benzol poisoning (and nitro or amido derivatives)	11	11	3	6	9
Volatile petroleum products poisoning (gasoline, benzine, naphtha, etc.)	3	4	2	6	5
Carbon bisulphide poisoning	1	1		18	2
Wood alcohol poisoning	1			1	
Dermatitis [1]	894	985	884	833	621
Epithelioma (skin or eyes) due to carbon, pitch, tar, or tarry compounds	3	2	1	5	1
Compressed air illness	16	62	59	5	20
Brass or zinc poisoning	7	5	2	10	2
Tenosynovitis [3] (flexor or extensor muscles of hands)	([2])	37	130	166	149
Prepatellar bursitis [3]	([2])	13	23	29	23
Chrome ulceration [4] (nasal and skin)	6	10	20	16	79
Potassium cyanide poisoning [4]	3	2		1	3
Sulphur dioxide poisoning [4]	2			5	4
Total	1,127	1,317	1,259	1,217	1,069

[1] Specified as infection or inflammation of the skin on contact surfaces due to oils, cutting compounds, or lubricants, dusts, liquids, etc.
[2] Statistics not kept in 1928.
[3] Added to compensable list July 31, 1929, by legislative act.
[4] Added to compensable list July 9, 1931, by legislative act.

Although noncompensable occupational diseases are reportable to the Ohio Department of Health under the law and should form the basis of legislative action extending the schedule of compensable diseases, the number actually reported is not large, as neither the attending physician nor patient receive any fee for reporting such cases. A table showing noncompensable diseases lists only 57 such cases in 1932, although 38 causative agents are specified, while in addition 33 cases of disease reported as due to occupational exposures were reported. In the latter cases the causative agent was not clear or definite, and there was some personal predisposition, climatic condition, or other unnamed factor present in the given case.

INDUSTRIAL ACCIDENTS

Accidents in Manufacturing Industries, 1926 to 1932

FIGURES collected and compiled by the Bureau of Labor Statistics in its annual survey of accidents in manufacturing industries show an increase for 1932 in both frequency and severity rates.

An average of 19.55 injuries was sustained in the combined industries during 1932 for every 1,000,000 man-hours worked, as against 18.85 in 1931, an increase in the frequency rate of 3.7 percent. An average of 2.86 days was lost through the injuries received in 1932, including standard schedule allowances for deaths and permanent disabilities, for every 1,000 man-hours worked, as against 2.59 in 1931, an increase in the severity rate of 10.4 percent.

Continued curtailment of industrial activity was responsible for a decided reduction in employment during 1932, and the diminished exposure to the hazards of industrial life naturally resulted in a substantial reduction in the total number of industrial injuries, but, as shown by the frequency rates of the Bureau, the total number of injuries did not decline so rapidly as the man-hours of exposure.

The difference in the frequency rates for the 2 years is presumably, at least partly, due to a let-up in safety activities—a common but unfortunate result of economy programs—so that unsafe conditions or practices were not eliminated or improved. Such neglect would naturally lead to a proportionate increase in accidents and, aside from the standpoint of human relations, would in the end prove far more expensive than the cost of the necessary safety work involved.

Other information received by the Bureau shows that, while the usual accident-prevention work was continued in many establishments, safety activities were curtailed greatly in others through reduction in safety personnel and maintenance personnel, or in funds for upkeep and repair of working places.

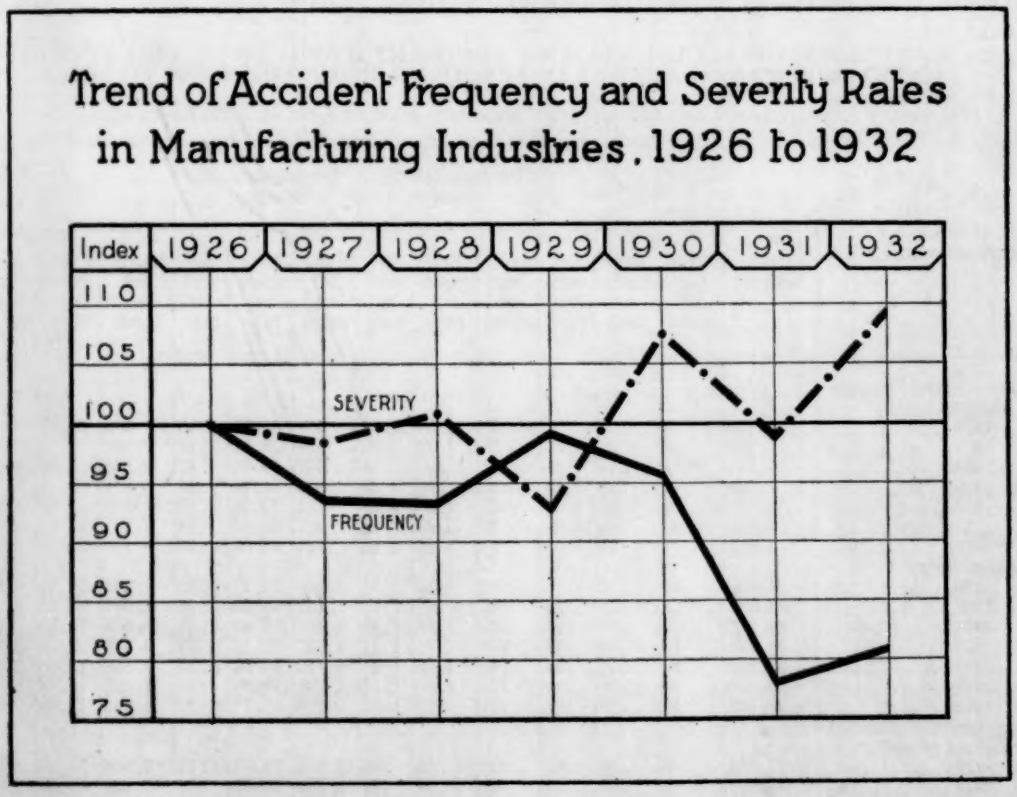
The question of continued and energetic accident-prevention work is especially important at the present time. Renewed industrial activity, with the attending employment of many workers in tasks with which they are not familiar, will greatly increase the occupational hazards, even where conditions are rendered as safe as possible. Reduction or laxness in safety work will increase these hazards still further, exact their toll of injuries and suffering, and prevent efficient and economic operation of the industry.

A distribution of accident frequency and severity rates for the combined manufacturing industries in 1932, by extent of disability, is shown in table 1, with comparable yearly rates for the 6 previous years. These rates were computed from the records for all establishments covered by the survey of the Bureau, and weighted according

to the total number of wage earners employed in each of the industrial groups, as given in the reports of the United States Bureau of the Census.

TABLE 1.—ACCIDENT FREQUENCY AND SEVERITY RATES IN MANUFACTURING INDUSTRIES, 1926 TO 1932 (WAGE EARNERS ONLY)

Year	Deaths		Permanent disability		Temporary disability		Total			
							Frequency		Severity	
	Frequency rate	Severity rate	Frequency rate	Severity rate	Frequency rate	Severity rate	Rate	Percent of change, as compared with preceding year	Rate	Percent of change, as compared with preceding year
1926	0.16	0.98	1.27	1.18	22.73	0.46	24.16	-------	2.62	-------
1927	.17	1.05	1.22	1.12	21.21	.41	22.60	−6.5	2.58	−1.5
1928	.18	1.08	1.32	1.16	21.02	.40	22.52	−.4	2.64	+2.3
1929	.15	.91	1.38	1.12	22.45	.40	23.98	+6.5	2.43	−8.0
1930	.17	1.06	1.41	1.34	21.50	.42	23.08	−3.8	2.82	+16.0
1931	.15	.90	1.30	1.35	17.40	.34	18.85	−18.3	2.59	−8.2
1932	.17	1.00	1.45	1.50	17.93	.36	19.55	+3.7	2.86	+10.4



The average frequency rate for the combined industries declined from 24.16 in 1926 to 22.52 in 1928, but advanced to 23.98 in 1929. It started again on a downward trend and dropped in 1931 to 18.85, its lowest level, then rose in 1932 to 19.55, making the total decrease for the period 19 percent. The average severity rate declined and advanced alternately, from 2.62 in 1926 to 2.86 in 1932, an increase for the period of 9 percent.

The fluctuations in the yearly rates are presented graphically in the chart on page 1389, which shows the trend of the average frequency and severity rates for the combined manufacturing groups during the 7-year period, 1926 to 1932.

The industrial accident surveys of the Bureau are limited to wage earners and do not include clerical employees, as the accident hazard for that group is entirely different. The surveys covered approximately 33 percent of the total wage earners in the respective industrial groups in 1926, 34 percent in 1927 and 1928, 38 percent in 1929, 37 percent in 1930, 44 percent in 1931, and 37 percent in 1932.

Individual industry rates, by extent of disability and by years, were computed from records of establishments in the States which furnished data for all accidents resulting in disability extending beyond the day of injury. It has been found that this selection constitutes a fairly representative cross-section for each of the industries covered, and that comparable rates for the various industries could not be computed otherwise. It must, however, be taken into consideration that in using only such records several important States are omitted from this individual compilation, and that neither the number of full-year workers nor the actual number of accidents in any one industry is comparable with the same item for another industry. Only the frequency rates and severity rates are comparable. The individual rates are shown in detail in table 2, by extent of disability and by industry and years.

TABLE 2.—NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR WAGE EARNERS IN SPECIFIED INDUSTRIES, 1926 TO 1932

[Frequency rates are based on 1,000,000 hours' exposure, severity rates on 1,000 hours' exposure]

Industry and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Agricultural implements:													
1926	5,126	0			39	2.54	3.08	554	36.03	0.58	593	38.57	3.66
1927	7,282	6	0.27	1.65	28	1.28	1.10	598	27.37	.46	632	28.92	3.21
1928	7,134	3	.14	.84	21	.98	.48	662	30.94	.47	686	32.06	1.79
1929	7,628	4	.18	1.05	68	2.97	3.38	800	34.96	.51	872	38.11	4.4
1930	5,855	4	.23	1.37	40	2.28	2.72	514	29.25	.55	558	31.76	4.64
1931	3,181	3	.31	1.89	27	2.83	2.34	237	24.83	.45	267	27.97	4.68
1932	1,913	1	.17	1.04	18	3.13	3.46	121	21.07	.37	140	24.37	4.87
Automobiles:													
1926	28,360	10	.12	.71	180	2.12	5.19	2,145	25.21	.35	2,335	27.45	6.25
1927	48,886	7	.05	.29	142	.97	1.27	1,852	12.63	.23	2,001	13.65	1.79
1928	52,269	9	.06	.34	229	1.46	1.10	3,267	20.83	.33	3,505	22.35	1.77
1929	58,127	14	.08	.48	299	1.71	1.31	3,657	20.97	.32	3,970	22.76	2.11
1930	32,574	10	.10	.61	146	1.49	1.43	1,372	14.04	.30	1,528	15.63	2.34
1931	28,626	8	.09	.56	129	1.50	1.16	1,193	13.89	.26	1,330	15.48	1.98
1932	20,342	10	.16	.98	104	1.70	1.67	718	11.77	.27	832	13.63	2.92
Automobile tires and rubber goods:													
1926	17,951	3	.06	.33	32	.59	.46	2,913	54.07	.72	2,948	54.72	1.51
1927	30,696	7	.08	.46	61	.66	.51	3,771	40.95	.73	3,839	41.69	1.70
1928	36,377	9	.08	.49	62	.57	.51	3,877	35.53	.62	3,948	36.18	1.62
1929	35,967	12	.11	.67	64	.59	.40	2,642	24.49	.43	2,718	25.19	1.50
1930	26,301	8	.10	.61	42	.53	.48	1,781	22.57	.47	1,831	23.20	1.56
1931	23,086	15	.22	1.30	55	.79	.65	1,346	19.43	.40	1,416	20.44	2.35
1932	20,666	6	.10	.58	35	.56	.49	1,058	17.06	.39	1,099	17.72	1.46

TABLE 2.—NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR WAGE EARNERS IN SPECIFIED INDUSTRIES, 1926 TO 1932—Continued

Industry and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Boots and shoes:													
1926	14,779	1	0.02	0.14	5	0.11	0.05	316	7.13	0.09	322	7.26	0.28
1927	39,763	1	.01	.05	69	.58	.47	892	7.48	.14	962	8.07	.66
1928	35,396	2	.02	.11	79	.74	.75	904	8.52	.17	985	9.28	1.03
1929	48,258	1	.01	.04	87	.60	.49	1,228	8.48	.14	1,316	9.09	.67
1930	57,683	4	.02	.14	69	.40	.27	1,130	6.53	.16	1,203	6.95	.57
1931	74,956	7	.03	.19	115	.51	.38	1,734	7.71	.13	1,856	8.25	.70
1932	56,902	4	.02	.14	97	.57	.47	1,328	7.78	.14	1,429	8.37	.75
Brick, tile, and terra cotta:													
1926	4,703	3	.21	1.28	11	.78	1.67	809	57.34	.92	823	58.33	3.87
1927	13,497	9	.22	1.33	31	.77	.75	1,436	35.46	.55	1,476	36.45	2.63
1928	9,685	8	.28	1.65	16	.55	.59	1,237	42.56	.73	1,261	43.39	2.97
1929	11,629	15	.43	2.58	31	.8	1.04	1,57	45.29	.65	1,624	46.61	4.27
1930	10,289	8	.26	1.55	25	.81	.95	1,270	41.14	.67	1,303	42.21	3.17
1931	12,581	20	.53	3.18	46	1.22	1.63	1,460	38.69	.69	1,52	40.44	5.50
1932	6,489	9	.46	2.77	20	1.03	1.06	709	36.41	.72	738	37.90	4.55
Carpets and rugs:													
1926	1,482	0			0			19	4.31	.08	19	4.31	.08
1927	15,321	1	.02	.13	12	.26	.2	214	4.6	.11	227	4.94	.49
1928	14,091	4	.09	.57	25	.59	.67	231	5.47	.14	260	6.15	1.38
1929	14,286	4	.09	.56	31	.72	.89	358	8.3	.12	393	9.15	1.57
1930	12,241	1	.03	.16	25	.68	.41	277	7.54	.15	303	8.25	.72
1931	9,015	1	.03	.22	24	.89	1.03	265	9.80	.18	290	10.72	1.43
1932	5,101	1	.06	.39	13	.85	.76	122	7.98	.12	13	8.89	1.27
Chemicals:													
1926	3,117	0			2	.21	.06	124	13.26	.25	12	13.47	.31
1927	8,540	5	.20	1.17	17	.66	.68	308	12.02	.22	33	12.88	2.07
1928	12,461	20	.53	3.21	35	.94	1.33	735	19.66	.45	790	21.13	4.99
1929	15,506	7	.15	.90	57	1.23	1.00	836	17.97	.27	900	19.35	2.17
1930	14,705	12	.27	1.63	48	1.09	1.21	718	16.28	.38	778	17.64	3.22
1931	14,970	12	.27	1.60	34	.76	1.04	465	10.35	.23	511	11.38	2.87
1932	14,053	6	.14	.85	35	.83	1.15	279	6.62	.16	320	7.59	2.16
Cotton goods:													
1926	44,194	0			23	.17	.14	1,171	8.83	.18	1,194	9.00	.32
1927	56,903	6	.04	.21	57	.33	.33	2,258	13.23	.27	2,321	13.60	.81
1928	63,952	5	.03	.16	82	.43	.35	2,332	12.15	.23	2,419	12.61	.74
1929	69,694	10	.05	.29	125	.60	.53	3,002	14.36	.28	3,137	15.01	1.10
1930	74,441	8	.04	.21	125	.56	.52	2,967	13.28	.26	3,100	13.88	.99
1931	131,401	7	.02	.11	128	.32	.29	3,483	8.84	.16	3,618	9.18	.56
1932	90,136	12	.04	.26	154	.57	.52	3,632	13.43	.25	3,798	14.04	1.03
Electrical machinery, apparatus, and supplies:													
1926	18,137	2	.04	.22	56	1.03	.64	1,095	21.13	.37	1,153	22.20	1.23
1927	60,927	11	.06	.36	210	1.15	1.02	2,611	14.28	.36	2,832	15.49	1.74
1928	61,634	10	.05	.32	183	.99	.80	2,181	11.80	.32	2,374	12.84	1.44
1929	85,201	12	.05	.28	388	1.52	.12	3,502	13.70	.27	3,902	15.27	.67
1930	64,468	16	.08	.50	257	1.33	1.02	2,995	15.49	.39	3,268	16.90	1.91
1931	67,371	13	.06	.38	189	.94	.76	1,957	9.68	.22	2,159	10.68	1.36
1932	43,232	18	.14	.83	122	.94	.69	989	7.63	.18	1,129	8.71	1.70
Fertilizers:													
1926	1,309	1	.26	1.54	2	.51	.28	174	44.54	.88	177	45.31	2.70
1927	2,498	3	.40	2.40	7	.93	1.79	261	34.83	.66	271	36.16	4.85
1928	4,341	10	.77	4.60	13	1.00	.91	476	36.54	.77	499	38.31	6.28
1929	5,167	9	.58	3.48	13	.84	1.14	567	36.57	.69	589	37.99	5.31
1930	5,275	7	.44	2.66	17	1.08	2.12	470	29.71	.51	494	31.23	5.29
1931	3,852	4	.35	2.08	13	1.12	1.24	369	31.92	.56	386	33.39	3.88
1932	3,067	4	.44	2.61	7	.76	.88	303	32.94	.59	314	34.14	4.08
Flour, feed, and other grain-mill products:													
1926	3,889	4	.34	2.06	15	1.29	1.94	310	26.57	.50	329	28.20	4.50
1927	7,107	5	.23	1.41	25	1.17	.90	477	22.37	.41	507	23.77	2.72
1928	9,355	5	.18	1.07	24	.86	.94	845	30.10	.54	874	31.14	2.55
1929	10,863	7	.21	1.29	31	.95	1.00	1,202	36.89	.62	1,240	38.05	2.91
1930	10,308	9	.29	1.75	54	1.75	2.61	1,135	36.70	.61	1,198	38.74	4.97
1931	12,672	7	.18	1.10	69	1.82	2.78	1,107	29.12	.51	1,183	31.12	4.39
1932	9,641	7	.24	1.45	38	1.31	2.04	765	26.45	.48	810	28.00	3.97
Foundry and machine-shop products:													
1926	27,069	17	.21	1.26	85	1.05	1.65	3,193	39.32	.58	3,295	40.58	2.89
1927	72,963	38	.17	1.04	338	1.54	1.33	6,356	29.05	.51	6,732	30.76	2.88
1928	66,276	29	.15	.87	301	1.51	.82	5,763	28.98	.21	6,093	30.64	1.90
1929	70,850	23	.11	.65	339	1.59	1.39	6,799	31.99	.48	7,161	33.69	2.52
1930	66,933	32	.16	.96	320	1.59	1.27	4,969	24.75	.46	5,321	26.50	2.69
1931	52,274	39	.25	1.49	272	1.73	1.51	3,781	24.11	.44	4,092	26.09	3.44
1932	29,282	24	.27	1.64	156	1.78	1.48	1,910	21.74	.40	2,090	23.79	3.52

TABLE 2.—NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR WAGE EARNERS IN SPECIFIED INDUSTRIES, 1926 TO 1932—Continued

Industry and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Furniture:													
1926	11,726	0	------	------	60	1.71	1.44	795	22.60	0.53	855	24.31	1.97
1927	21,918	5	0.08	0.46	124	1.88	1.43	1,296	19.70	.30	1,425	21.66	2.19
1928	22,020	7	.11	.63	90	1.36	.98	1,192	18.04	.31	1,289	19.51	1.92
1929	24,345	8	.11	.66	160	2.19	1.54	1,704	23.34	.31	1,872	25.64	2.51
1930	19,969	8	.13	.80	106	1.77	1.37	1,291	21.55	.32	1,405	23.45	2.49
1931	33,389	9	.09	.54	162	1.62	1.37	1,661	16.58	.24	1,832	18.29	2.15
1932	19,254	12	.21	1.25	127	2.20	1.75	1,068	18.49	.30	1,207	20.90	3.30
Glass:													
1926	6,717	1	.05	.30	17	.84	1.04	797	39.55	.49	815	40.44	1.83
1927	19,267	14	.24	1.45	24	.42	.35	2,233	38.63	.51	2,271	39.29	2.31
1928	21,107	7	.11	.66	28	.44	.32	2,620	41.38	.55	2,655	41.93	1.53
1929	27,242	14	.17	1.02	43	.52	.36	2,456	29.96	.37	2,513	30.65	1.75
1930	21,692	5	.08	.46	60	.92	.87	1,681	25.84	.40	1,746	26.84	1.73
1931	33,041	16	.16	.97	56	.56	.56	1,560	15.74	.24	1,632	16.46	1.77
1932	18,777	4	.07	.43	38	.67	.53	1,118	19.85	.31	1,160	20.59	1.27
Hardware:													
1926	886	0	------	------	5	1.88	.73	75	28.22	.58	80	30.10	1.31
1927	3,764	1	.09	.53	15	1.33	1.02	330	29.22	.44	346	30.64	1.99
1928	4,040	3	.25	1.49	14	1.16	1.00	400	33.01	.55	417	34.42	3.04
1929	4,467	2	.15	.89	28	2.09	1.42	460	34.32	.40	490	36.56	2.71
1930	3,326	1	.10	.60	10	1.00	.35	234	23.45	.31	245	24.55	1.26
1931	3,487	0	------	------	5	.48	.40	233	22.27	.33	238	22.75	.73
1932	2,376	1	.14	.84	9	1.26	.78	135	18.94	.37	145	20.34	1.99
Iron and steel:													
1926	160,145	111	.23	1.39	393	.82	.63	9,550	19.87	.26	10,054	20.92	2.28
1927	327,907	204	.21	1.24	647	.65	.59	17,658	17.95	.33	18,509	18.81	2.16
1928	308,066	201	.22	1.30	700	.76	.72	18,171	19.66	.37	19,072	20.64	2.39
1929	463,721	192	.16	.95	956	.79	.69	23,102	19.07	.32	24,250	20.02	1.96
1930	304,958	173	.19	1.14	752	.82	.76	15,290	16.71	.36	16,215	17.72	2.25
1931	207,380	121	.19	1.17	552	.89	.76	10,234	16.45	.37	10,907	17.53	2.30
1932	122,397	54	.15	.88	317	.86	.80	5,803	15.80	.39	6,174	16.81	2.07
Leather:													
1926	5,530	2	.12	.72	7	.42	.62	187	11.27	.26	196	11.81	1.60
1927	11,521	3	.09	.52	19	.55	.41	948	27.43	.43	970	28.07	1.36
1928	13,066	2	.05	.31	28	.71	.92	789	20.12	.27	819	20.88	1.50
1929	13,586	3	.07	.44	23	.56	.45	970	23.76	.36	996	24.39	1.25
1930	15,409	4	.09	.52	33	.71	.75	1,084	23.45	.36	1,121	24.25	1.63
1931	13,636	2	.05	.29	30	.73	.57	818	20.00	.33	850	20.78	1.19
1932	9,047	8	.30	1.77	21	.77	1.15	680	25.05	.46	709	26.12	3.38
Logging:													
1929	16,600	33	.66	3.98	106	2.13	1.77	2,050	41.20	1.06	2,189	43.99	6.81
1930	7,569	31	1.36	8.19	153	6.74	8.32	1,968	86.65	1.98	2,152	94.75	18.49
1931	4,279	20	1.56	9.35	89	6.93	13.00	952	74.15	1.79	1,061	82.64	24.14
1932	1,967	9	1.53	9.15	71	12.03	20.66	557	94.38	2.59	637	107.94	32.40
Lumber—planing mills:													
1926	5,242	3	.19	1.14	47	2.99	2.15	467	29.70	.65	517	32.88	3.94
1927	9,416	9	.32	1.91	72	2.55	2.64	634	22.44	.57	715	25.31	5.12
1928	12,112	6	.17	.99	118	3.25	2.17	1,162	31.97	.60	1,286	35.39	3.76
1929	14,021	7	.17	1.00	169	4.02	2.85	1,233	29.34	.49	1,409	33.53	4.34
1930	9,650	3	.10	.62	93	3.21	3.07	1,110	38.34	.68	1,206	41.65	4.37
1931	15,729	10	.21	1.27	110	2.33	1.86	928	19.67	.31	1,048	22.21	3.44
1932	6,017	0	------	------	70	3.88	2.71	606	33.58	.89	676	37.46	3.60
Lumber—sawmills:													
1926	5,302	15	.94	5.66	33	2.07	3.28	1,012	63.62	1.57	1,060	66.63	10.51
1927	13,631	22	.54	3.23	130	3.19	3.74	2,386	58.46	1.25	2,538	62.19	8.22
1928	36,724	72	.65	3.92	374	3.39	3.29	5,467	49.63	1.08	5,913	53.67	8.29
1929	20,481	19	.31	1.86	157	2.56	1.78	2,840	46.29	.88	3,016	49.16	4.52
1930	22,002	13	.20	1.18	194	2.94	2.38	2,049	31.04	.65	2,256	34.18	4.21
1931	28,019	26	.31	1.85	278	3.31	4.85	4,128	49.11	.90	4,432	52.73	7.60
1932	15,405	15	.32	1.95	172	3.72	3.89	2,325	50.31	.97	2,512	54.35	6.81
Machine tools:													
1926	9,303	3	.11	.64	15	.54	.32	623	22.32	.25	641	22.97	1.21
1927	12,207	3	.08	.49	28	.76	.70	780	21.30	.34	811	22.14	1.53
1928	13,074	7	.18	1.07	44	1.12	.90	875	22.31	.40	926	23.61	2.37
1929	16,509	7	.14	.85	49	.99	.74	1,253	25.31	.36	1,309	26.44	1.95
1930	11,121	9	.27	1.62	25	.75	.53	698	20.92	.43	732	21.94	2.58
1931	5,860	1	.06	.34	12	.68	.68	260	14.79	.35	273	15.53	1.37
1932	3,099	3	.32	1.94	7	.75	.32	136	14.63	.39	146	15.70	2.65
Paper and pulp:													
1926	16,770	7	.14	.83	36	.72	.83	1,562	31.05	.51	1,605	31.91	2.17
1927	26,074	18	.23	1.38	126	1.61	1.62	2,224	28.43	.60	2,368	30.27	3.60
1928	27,158	14	.18	1.03	154	1.89	2.04	2,284	28.03	.56	2,452	30.10	3.63
1929	34,632	14	.13	.81	193	1.86	1.71	2,900	27.91	.48	3,107	29.90	3.00
1930	31,662	20	.21	1.26	181	1.91	1.82	2,799	29.47	.57	3,000	31.59	3.65
1931	39,850	25	.21	1.25	175	1.46	1.44	3,085	25.80	.45	3,285	27.47	3.14
1932	33,247	39	.39	2.35	161	1.62	1.93	2,357	23.63	.45	2,557	25.64	4.73

TABLE 2.—NUMBER OF ACCIDENTS AND ACCIDENT FREQUENCY AND SEVERITY RATES FOR WAGE EARNERS IN SPECIFIED INDUSTRIES, 1926 TO 1932—Continued

Industry and year	Number of full-year workers	Death			Permanent disability			Temporary disability			Total		
		Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate	Number of cases	Frequency rate	Severity rate
Petroleum refining:													
1926	3,783	0			6	0.53	0.32	99	8.72	0.20	105	9.25	0.52
1927	19,951	25	0.42	2.51	67	1.12	1.12	1,979	33.04	.52	2,071	34.58	4.15
1928	22,401	25	.37	2.23	46	.69	.42	1,310	19.49	.37	1,381	20.55	3.02
1929	25,849	28	.36	2.17	69	.89	.72	1,609	20.76	.34	1,706	22.01	3.23
1930	28,371	36	.42	2.54	136	1.60	2.85	2,497	29.34	.60	2,669	31.36	5.99
1931	26,011	37	.47	2.84	73	.94	1.21	1,722	22.07	.35	1,832	23.48	4.40
1932	22,526	20	.30	1.78	59	.87	1.56	840	12.43	.25	919	13.60	3.59
Pottery:													
1926	3,946	1	.08	.51	2	.17	.36	142	12.00	.25	145	12.25	1.12
1927	6,053	2	.11	.66	6	.33	.18	229	12.61	.17	237	13.05	1.01
1928	7,449	3	.13	.80	7	.32	.46	299	13.38	.26	309	13.83	1.52
1929	9,275	1	.03	.21	9	.32	.21	445	15.97	.27	455	16.32	.69
1930	7,558	0			9	.40	.50	329	14.51	.27	338	14.91	.77
1931	8,303	2	.08	.48	3	.12	.28	303	12.16	.19	308	12.36	.95
1932	5,862	2	.11	.68	11	.63	.42	221	12.57	.28	234	13.31	1.38
Shipbuilding, steel:													
1926	745	0			2	.89	1.92	123	55.03	.96	125	55.92	2.88
1927	6,011	5	.28	1.66	36	2.00	2.58	798	44.25	.76	839	46.53	5.00
1928	9,133	3	.11	.66	43	1.57	1.26	448	16.35	.48	491	18.03	2.40
1929	13,642	10	.24	1.46	47	1.15	.80	910	22.20	.34	967	23.59	2.60
1930	16,422	11	.22	1.34	87	1.77	1.61	1,363	27.67	.59	1,461	29.66	3.54
1931	13,967	9	.21	1.29	47	1.12	.92	1,490	35.56	.62	1,546	36.89	2.83
1932	8,325	6	.24	1.44	25	1.00	.69	621	24.87	.54	652	26.11	2.67
Slaughtering and meat packing:													
1926	19,809	8	.13	.81	93	1.56	1.50	2,935	49.39	.66	3,036	51.08	2.97
1927	36,222	15	.14	.83	136	1.25	1.00	3,810	35.05	.54	3,961	36.44	2.37
1928	38,674	15	.13	.78	127	1.09	.71	5,080	43.78	.63	5,222	45.00	2.12
1929	48,116	23	.16	.96	187	1.29	.81	6,449	44.67	.57	6,659	46.12	2.34
1930	40,648	29	.24	1.43	202	1.66	1.52	4,466	36.62	.58	4,697	38.52	3.53
1931	44,192	19	.14	.86	237	1.79	1.56	4,219	31.82	.45	4,475	33.75	2.87
1932	41,130	10	.08	.49	198	1.61	1.37	3,303	26.77	.43	3,511	28.46	2.89
Stamped and enameled ware:													
1926	6,105	0			28	1.52	1.15	893	48.76	.48	921	50.28	1.63
1927	10,004	2	.07	.40	36	1.20	.70	807	26.89	.35	845	28.16	1.45
1928	8,068	2	.08	.50	50	2.07	1.20	688	28.42	.44	740	30.57	2.14
1929	8,537	3	.12	.70	77	3.00	2.07	703	27.42	.42	783	30.54	3.19
1930	6,587	6	.30	1.82	33	1.67	1.53	354	17.92	.32	393	19.89	3.67
1931	9,021	2	.07	.44	51	1.88	1.60	605	22.36	.34	658	24.31	2.38
1932	6,996	3	.14	.86	46	2.19	1.82	355	16.91	.28	404	19.24	2.96
Steam fittings, apparatus, and supplies:													
1926	2,640	0			4	.50	1.32	248	31.31	.39	252	31.81	1.71
1927	15,652	2	.04	.25	25	.53	.32	1,057	22.51	.33	1,084	23.08	.90
1928	8,935	4	.15	.90	42	1.57	1.25	858	32.00	.55	904	33.72	2.70
1929	9,538	2	.07	.42	30	1.05	.85	863	30.12	.43	895	31.24	1.70
1930	6,620	3	.15	.91	17	.86	.62	583	29.35	.52	603	30.36	2.05
1931	5,768	2	.11	.69	18	1.04	1.05	382	22.08	.44	402	23.23	2.18
1932	3,100	3	.32	1.93	8	.86	.89	203	21.83	.42	214	23.01	3.24
Stoves:													
1926	4,379	0			21	1.60	1.93	532	40.50	.62	553	42.10	2.55
1927	7,515	1	.04	.27	25	1.11	1.04	1,002	44.44	.62	1,028	45.59	1.93
1928	7,880	3	.13	.76	28	1.18	.70	934	39.51	.55	965	40.82	2.01
1929	9,645	3	.10	.62	46	1.59	1.39	1,196	41.38	.53	1,245	43.07	2.54
1930	7,460	2	.09	.54	22	.98	.94	751	33.56	.66	775	34.63	2.14
1931	10,019	7	.23	1.40	32	1.06	1.12	640	21.30	.41	679	22.59	2.93
1932	5,339	3	.19	1.12	28	1.75	1.78	385	24.04	.52	416	25.98	3.42
Woolen goods:													
1926	7,757	1	.04	.26	3	.13	.06	252	10.84	.30	256	11.01	.62
1927	15,796	1	.02	.13	10	.21	.17	444	9.37	.15	455	9.60	.45
1928	22,607	0			23	.34	.29	762	11.23	.18	785	11.57	.47
1929	23,189	2	.03	.17	25	.36	.33	1,024	14.74	.25	1,051	15.13	.75
1930	19,903	1	.02	.10	12	.20	.17	649	10.87	.21	662	11.09	.48
1931	40,792	3	.03	.15	42	.34	.30	1,005	8.21	.15	1,050	8.58	.60
1932	21,546	4	.06	.37	44	.68	.68	948	14.67	.28	996	15.41	1.33
All groups:													
1926	440,901	193			1,222			33,115			34,530		
1927	927,292	431			2,523			59,649			62,603		
1928	955,485	488			2,986			65,849			69,323		
1929	1,156,571	489			3,907			78,338			82,734		
1930	962,000	474			3,293			58,794			62,561		
1931	976,728	447			3,073			51,622			55,142		
1932	647,234	298			2,211			33,595			36,104		

The survey covered 29 manufacturing groups up to 1929, when separate figures became available for logging operations, which were previously included in the classification "lumber—logging." A new classification, "logging", was therefore added in 1929, making 30 groups in all. The separation is very noticeable in the accident rates for sawmills, which dropped sharply in 1929 through the elimination of the more hazardous logging operations.

Eleven of the 30 industrial groups followed the combined trend and experienced increases in both frequency and severity rates in 1932 as compared with 1931. Two other industries experienced increases in frequency rates but decreases in severity rates, while eight other industries experienced decreases in both rates.

In frequency rates the increases ranged from 0.12 for boots and shoes to 25.3 for logging, and the decreases ranged from 0.22 for steam fittings, apparatus, and supplies to 10.78 for shipbuilding. In severity rates the increases ranged from 0.05 for boots and shoes to 8.26 for logging, and the decreases ranged from 0.16 for carpets and rugs and for shipbuilding to 0.95 for brick, tile, and terra cotta.

Eighteen of the 30 industries present frequency rates higher than the average (18.59), with logging showing the worst experience (107.94) and sawmills next (54.35). Logging also shows the worst experience in severity rates (32.40) and sawmills is second there likewise (6.81). Sixteen other industries also show severity rates exceeding the average (2.39).

Accident Experience of American Steam Railways, 1932

ACCORDING to a summary and analysis of railway accidents, published by the Bureau of Statistics of the Interstate Commerce Commission, for the calendar year 1932, 4.19 persons were killed and 15.89 were injured per 1,000,000 locomotive-miles in train and train-service accidents on steam railways in the United States during 1932, as compared with 3.71 persons killed and 15.32 injured during 1931.

Train accidents were responsible for 183 deaths and 997 nonfatal injuries, including 63 deaths and 326 nonfatal injuries to employees on duty. Train-service accidents accounted for 4,341 deaths and 16,160 nonfatal injuries, of which 367 deaths and 6,861 nonfatal injuries were sustained by employees on duty. Nontrain (including industrial) accidents resulted in 223 deaths and 12,062 nonfatal injuries, of which 127 deaths and 10,227 nonfatal injuries occurred to employees on duty. Nonfatal injuries to employees include only those causing disability of more than 3 days.

The total number of deaths in all types of accidents was 4,747 in 1932, as against 5,099 in 1931, a decrease of 6.9 percent. The total number of nonfatal injuries in all types of accidents was 29,219 in 1932, as against 35,656 in 1931, a decrease of 18.05 percent. Locomotive-miles dropped from 1,308,807,762 in 1931 to 1,079,670,099 in 1932, a decrease of 17.51 percent, a larger decline than shown for fatalities but smaller than shown for nonfatal injuries.

The number of employees killed while on duty in either train, train-service, or nontrain accidents declined from 488 in 1931 to 430 in 1932, or 11.89 percent, while the number injured declined from 9,433 in 1931 to 7,187 in 1932, a decrease of 23.81 percent. Man-hours for

all employees are not available, but man-hours for class I roads dropped from 2,930,657,000 in 1931 to 2,286,561,000 in 1932, a decrease of 21.98 percent.

Part of the summary, showing the total number of persons and the number of employees on duty killed and injured in 1931 and 1932, by type of accident and cause, is shown in the following table.

PERSONS KILLED AND INJURED IN STEAM-RAILWAY ACCIDENTS IN THE UNITED STATES, 1931 AND 1932

Type of accident, and cause	Total persons				Employees on duty			
	Killed		Injured		Killed		Injured	
	1931	1932	1931	1932	1931	1932	1931	1932
Train accidents:								
Collisions	39	34	485	358	33	30	169	117
Derailments	108	77	583	526	42	26	189	171
Locomotive-boiler accidents	8	3	8	5	8	3	8	5
Other locomotive accidents	0	1	6	3	0	1	3	3
Miscellaneous	74	68	126	105	9	3	45	30
Total, train accidents	229	183	1,208	997	92	63	414	326
Train-service accidents:								
Coupling or uncoupling cars or locomotives	12	20	394	307	12	20	394	307
Coupling or uncoupling air hose	13	9	175	123	13	9	175	123
Operating locomotives	7	6	1,406	1,042	7	6	1,406	1,042
Operating hand brakes	18	12	824	593	18	12	824	593
Operating switches	0	2	245	210	0	2	245	210
Contact with fixed structures	60	71	335	284	18	17	232	165
Getting on or off cars or locomotives	447	520	4,096	3,946	28	34	1,879	1,549
Accidents at highway grade crossings	1,720	1,445	4,533	3,911	13	9	33	36
Struck or run over, not at public crossings	1,730	1,590	1,022	911	165	128	179	139
Miscellaneous	617	666	5,819	4,833	122	130	3,652	2,697
Total, train-service accidents	4,624	4,341	18,849	16,160	396	367	9,019	6,861
Total, train and train-service accidents	4,853	4,524	20,057	17,157	488	430	9,433	7,187
Accident rate (train and train-service) per 1,000,000 locomotive-miles	3.71	4.19	15.32	15.89	0.37	0.40	7.21	6.66
Total nontrain (including industrial) accidents	246	223	15,599	12,062	156	127	13,521	10,227
Grand total, all accidents	5,099	4,747	35,656	29,219	644	557	22,954	17,414
Percent of decrease in total accidents, 1931–32	.....	6.90	.....	18.05	.....	13.51	.....	24.14

Coal-Mine Accidents in the United States, 1931

STATISTICS of accidents occurring in coal mines during 1931, published by the United States Bureau of Mines in its Bulletin No. 373,[1] shows that injuries during the year, totaling 81,812, resulted in 1,463 fatalities, 98 permanent total disabilities, 1,773 permanent partial disabilities, and 78,478 temporary disabilities.

Progress was made in accident prevention, in spite of the adverse conditions created through heavy curtailment of operations in the industry. The number of workers declined from 644,006 in 1930 to 589,705 in 1931, a reduction of 8.43 percent. The average days of operation also declined from 192 in 1930 to 168 in 1931, a reduction of 12.5 percent, resulting in a decrease in the total number of man-hours worked from 1,002,691,781 in 1930 to 804,394,130 in 1931, a reduction

[1] United States. Department of Commerce. Bureau of Mines. Bulletin 373: Coal-mine accidents in the United States, 1931, by W. W. Adams, L. E. Geyer, and L. Chenoweth. Washington, 1933.

of 19.78 percent. The number of deaths declined from 2,063 in 1930 to 1,463 in 1931, a reduction of 29.08 percent, so that the fatality rate per million man-hours worked was lowered from 2.06 in 1930 to 1.82 in 1931, a decrease of 11.65 percent. The nonfatal-injury rate was also reduced, but in less degree—from 103.54 in 1930 to 99.89 in 1931, a decrease of 3.53 percent.

While 1,080 of the 1,463 fatalities occurred in bituminous-coal mines, 4,914 of the total bituminous-coal mines operated the entire year without a fatal accident, although they employed 60.9 percent of the workers and produced 53.6 percent of all bituminous tonnage. A distribution by States shows that the coal mines in Alaska and Michigan were operated without loss of life during the year, while the highest fatality rate was established by Indiana (3.71 per 1,000,000 man-hours worked). Alaska presented the lowest nonfatal-injury rate (28.19), and Utah the highest (153.10).

The only figures available for nonfatal injuries are for the years 1930 and 1931, but data for fatalities are published beginning with 1911,[2] as presented in table 1, which shows the number of workers employed, the number of man-hours worked, production, and the number of workers killed, by 5-year periods from 1911 to 1930 and by years from 1926 to 1931.

TABLE 1.—EMPLOYMENT, PRODUCTION, AND FATALITIES IN COAL MINES, 1911 TO 1931

Period or year	Number of men employed	Man-hours worked	Production (short tons)	Men killed		
				Number	Rate per 1,000,000 man-hours worked	Rate per 1,000,000 tons mined
1911–15	3,695,847	6,991,812,000	2,646,030,795	12,583	1.80	4.76
1916–20	3,801,904	7,388,822,000	3,131,929,644	12,097	1.64	3.86
1921–25	4,059,014	5,849,631,000	2,794,733,483	11,077	1.89	3.96
1926–30	3,499,541	5,878,704,781	2,977,484,316	11,175	1.90	3.75
1926	759,033	1,352,840,000	657,804,437	2,518	1.86	3.83
1927	759,177	1,219,079,000	597,858,916	2,231	1.83	3.73
1928	682,831	1,135,543,000	576,093,039	2,176	1.92	3.78
1929	654,494	1,168,551,000	608,816,788	2,187	1.87	3.59
1930	644,006	1,002,691,781	536,911,136	2,063	2.06	3.84
1931	589,705	804,394,130	441,750,978	1,463	1.82	3.31

There were 1,355 fatal and 73,312 nonfatal injuries in underground operations in 1931, 78 fatal and 5,850 nonfatal injuries in surface operations, and 30 fatal and 1,187 nonfatal injuries in shaft and open-cut operations. Falls of roof or face accounted for 836 of the underground deaths and 21,733 of the underground nonfatal injuries. The next principal cause of underground injuries was mine cars and locomotives, responsible for 237 deaths and 15,437 nonfatal injuries.

Fatality rates for bituminous-coal mines and anthracite mines are shown in table 2, which contains rates for each type and both types combined, by years from 1925 to 1931.[2]

[2] For earlier data see Monthly Labor Review for December 1932, pp. 1338-1339.

TABLE 2.—FATALITY RATES FOR BITUMINOUS-COAL AND ANTHRACITE MINES, 1925 TO 1931

Year	Bituminous-coal mines		Anthracite mines		All mines	
	Per 1,000 300-day employees	Per 1,000,000 tons mined	Per 1,000 300-day employees	Per 1,000,000 tons mined	Per 1,000 300-day employees	Per 1,000,000 tons mined
1925	4.79	3.53	4.12	6.47	4.65	3.84
1926	4.86	3.60	3.37	5.36	4.50	3.83
1927	4.60	3.36	3.94	6.11	4.43	3.73
1928	4.90	3.45	3.85	5.93	4.64	3.78
1929	4.63	3.19	4.24	6.53	4.54	3.59
1930	5.26	3.46	4.22	6.40	5.00	3.84
1931	4.42	2.83	4.43	6.42	4.42	3.31

Metal-Mine Accidents in the United States, 1931

WHILE a smaller number of men were employed in the metal-mining industry in the United States and fewer man-hours were worked in 1931 than in any previous year since 1910, the number of deaths and injuries from accidents was reduced in even greater proportion, according to a report published by the United States Bureau of Mines.[1] An all-time safety record in the prevention of nonfatal injuries was established in 1931 and also, except for 1928, in the prevention of injuries resulting in death.

Compared with 1930, the records for 1931 showed a decline of 33 percent in the number of man-hours worked, but also a decrease of 42 percent in fatalities and of 44 percent in nonfatal injuries. Consequently, the fatality rate (per 1,000,000 man-hours worked) was lowered from 1.17 in 1930 to 1.01 in 1931, and the nonfatal-injury rate was lowered from 67.07 in 1930 to 55.76 in 1931.

Accidents during the year resulted in 158 deaths, 15 permanent total disabilities, 292 permanent partial disabilities, and 8,402 temporary disabilities, a total of 8,867 accidents for the year.

Underground mining operations were responsible for 119 of the 158 fatalities and 6,595 of the 8,709 nonfatal accidents. The principal cause of both the fatal and nonfatal injuries was fall of rock or ore from roof or wall, which was responsible for 65 fatalities and 1,420 nonfatal injuries. Explosives and falls of persons were other prominent causes of deaths; while loading of rock or ore, with 832 cases, haulage, with 761 cases, and hand tools, with 666 cases, were the chief causes of the nonfatal injuries.

Gold, silver, and miscellaneous metal mines formed the most active division during the year 1931, with the largest number of workers, man-hours, and injuries, both fatal and nonfatal. Copper mines came second, except in actual number of workers, where they were exceeded by iron mines.

The following table shows the number of workers employed, the number killed or injured, and fatal and nonfatal injury rates in the different divisions of the metal-mining industry in 1931.[2]

[1] United States. Department of Commerce. Bureau of Mines. Bulletin 374: Metal-mine accidents in the United States during the calendar year 1931, by William W. Adams. Washington, 1933.

[2] For earlier figures, see Monthly Labor Review for March 1932 and October 1932.

EMPLOYMENT AND ACCIDENTS IN METAL MINES AND NONMETALLIC-MINERAL MINES (EXCEPT COAL), 1931

Type of mine	Average days active	Men employed		Men killed		Men injured	
		Actual number	Man-hours worked	Number	Rate per 1,000,000 hours' exposure	Number	Rate per 1,000,000 hours' exposure
Copper	258	19,687	41,019,314	51	1.24	2,580	62.90
Gold, silver, and miscellaneous metal	248	24,343	48,632,722	58	1.19	3,825	78.65
Iron	202	21,786	39,121,025	28	.72	774	19.78
Lead and zinc (Mississippi Valley)	189	6,175	9,463,502	10	1.06	689	72.81
Nonmetallic mineral	227	8,949	17,941,296	11	.61	841	46.88
Total	231	80,940	156,177,859	158	1.01	8,709	55.76

LABOR LAWS AND COURT DECISIONS

New Mexico Law Regulating Hours of Labor for Men Held Unconstitutional

THE law of New Mexico (ch. 149, Acts of 1933), which prohibits the labor of male employees in mercantile establishments for more than 8 hours per day or 48 hours per week of 6 days is unconstitutional, and therefore void, being a violation of the "due process" clause and not a valid exercise of the State police power, according to a recent decision by the Supreme Court of New Mexico. (*State* v. *Henry*, 25 Pac. (2d) 204.)

The defendant in the case, H. E. Henry, was the proprietor of a drug store and it was alleged that he caused "a male employee, * * * a registered pharmacist, to work and labor in said mercantile establishment for more than 8 hours in a certain 24-hour day, * * * the said work and labor not having been performed in an emergency case." The constitutionality of the statute was attacked and the District Court of Bernalillo County declared the law invalid as being an arbitrary classification not connected with the public health, safety, morals, or general welfare. The court saw no reason why such regulation should be placed on mercantile establishments and not on factories, laundries, foundries, bakeries, etc. The court said: "Had the legislature, in keeping with the social trend of the times, made a sweeping enactment of an 8-hour day for all wage earners in the State, this court would have viewed it with great sympathy, but there appears no ground for ascribing validity to the present act."

The case was thereupon appealed to the Supreme Court of New Mexico, where the decision of the district court was affirmed. In declaring the law unconstitutional, Mr. Chief Justice Watson, speaking for the court, emphasized the view that the statute violated the "due process" clause of the State constitution. The opinion was based upon the decision of the United States Supreme Court in the case of *Lochner* v. *New York* (198 U.S. 45) in which the New York law limiting daily labor in bakeries to 10 hours was declared unconstitutional, in a 5-to-4 decision, which is considered by good authority to have been overruled in later decisions.[1]

In the course of the present opinion the court defined "liberty" as used in the Constitution to embrace "a man's right to contract as he will or can regarding his hours of employment. He, not the government, is to determine the matter." This definition is interesting when compared with Mr. Justice Brewer's remark in the United States Supreme Court decision in *Holden* v. *Hardy* (169 U.S. 366) that "the fact that both parties are of full age and competent to contract does not necessarily deprive the State of the power to interfere where the

[1] See XIX American Bar Association Journal, 440, footnote.

parties do not stand upon an equality * * *," and Mr. Chief Justice Hughes' opinion in *Miller* v. *Wilson* (236 U.S. 373) that "the liberty of contract guaranteed by the Constitution is freedom from arbitrary restraint, not immunity from reasonable regulation to safeguard the public interest * * *."

In discussing "due process" the court said:

> "Due process", by which only the individual may be deprived of his liberty, does not have regard merely to enforcement of the law, but searches also the authority for making the law. An historical and scientific mistake may have been made in deviating from the more familiar idea that "due process" is matter of procedure only. (Corwin, "The Supreme Court and the Fourteenth Amendment," 7 Mich. Law. Rev. 643.) Nevertheless, by judicial decision, the first and fundamental step in the due process or procedure of depriving the individual of liberty is the enactment of a statute within legislative competency.

Much space was given in the opinion in distinguishing the New Mexico law from the Oregon law which was upheld in *Bunting* v. *Oregon* (243 U.S. 426). The Oregon law provided for a 10-hour day in all mills, factories, or manufacturing establishments. The court also relied upon the difference between the Oregon Constitution and that of the State of New Mexico adopted in 1910. In concluding the opinion the court said:

> A final question not unnaturally arises. In the minds of many the present widespread evil of unemployment is so great as to require or justify extraordinary measures by government. Revolution even is feared by some as a consequence of failure or inability to alleviate it. This suggests inquiry as to the so-called emergency powers of government.
>
> The act bears on its face no evidence that it is the legislature's plan for meeting an emergency. It contains no recitals or findings. Emergency was not declared, even for the purpose of giving it immediate effect. It was not declared to be for the "preservation of the public peace, health, or safety", as bearing upon the people's reserved power to disapprove, suspend, and annul it. Its operation is not limited to the duration of any emergency. It stands as permanent State policy.
>
> * * * Mercantile establishments might quite generally meet the situation by remaining open for shorter hours, or by staggering. The shorter hours compelled might result in proportionate decreases in wages. In that case, the net result would be merely to take from one to give to another.
>
> So we find evidence before us insufficient to warrant bringing into question any emergency powers the State may have to preserve its own existence and the peace and safety of the people. The nature and extent of such powers we do not consider here.

Part-Time Household Worker Not a Casual Employee in New Jersey

THE Supreme Court of New Jersey recently held that a household worker who had been employed to do housework for one or more days per week, over a period of 10 years, was engaged in "recurring employment" and was not a "casual" employee. (*Harrington* v. *Garrison et al.*, 168 Atl. 166.)

Maude Harrington, a skilled houseworker, was injured in the home of Mrs. Garrison, one of several persons for whom the former did various kinds of housework, including cooking, sewing, and cleaning. The time of doing the work and its amount were subject to change and depended largely upon the appointments Miss Harrington had with her other employers. It was conceded, however, that she worked for Mrs. Garrison from 1 to 3 days every week. The rate of pay for these services was 50 cents per hour, paid weekly or every 2 weeks.

At the end of the week preceding her injury, Miss Harrington had neither requested nor received her pay, a circumstance indicative of the long-enduring relations which existed between the parties and their expectation that the services would be continued.

There was no dispute as to the injuries that Miss Harrington received in the Garrison home, and the award of the deputy commissioner of the workmen's compensation board was affirmed by the court of common pleas, Essex County. Thereupon Mrs. Garrison carried the case to the Supreme Court of New Jersey for review, contending that the employment was casual, not in connection with employer's business, and not "regular, periodic, or recurring", and therefore the injury was not compensable.

In affirming the decision of the deputy commissioners and the court of common pleas, granting an award of compensation, the court held:

> Without attempting to determine whether Mrs. Garrison's status as a housewife was a business within the meaning of the statute, we state our conclusion that the employment was at least "recurring." * * *
> * * * Miss Harrington was in effect a part-time servant in the prosecutor's employ, and her service had at least this degree of regularity, that the employment was for a part of every week that the Garrisons were at home over a long period of years and for a minimum of 1 day in each of those weeks. In this long repetition of weekly service, in the acceptance of it as a regularly recurring fact and in the mutual expectation of continuation, we find a condition utterly at variance with the common understanding of, as well as with the statutory definition of, a casual employment.

Canadian Labor Legislation, 1932

LABOR laws enacted in 1932 by the Parliament of Canada and the Provincial legislatures are published in the Dominion Department of Labor report on Canadian legislation, 1932, and summarized in the Canada Year Book 1933, from which the following principal provisions are taken: [1]

Federal Legislation

THE Governor in Council was authorized by the Relief Act of 1932 to enter into agreements with the Provinces in respect to relief measures and to pay from the Consolidated Revenue the sums required to meet the obligations resulting from such agreements; to make provision for special relief and works in the national parks and in the drought-stricken regions of Saskatchewan; to aid in defraying the cost of the sale and distribution of natural products; to make loans to, and assure the repayment of money lent to Provinces or public corporations and projects; and in general to aid the Provinces in relieving distress.

The Unfair Competition Act which repealed certain sections of the Trade Work and Design Act was amended to include provision for the protection of trade-union labels, according to the 1925 Hague convention.

Provincial Legislation

Industrial disputes.—In Ontario and Quebec legislation was passed making the Dominion Industrial Disputes Investigation Act applicable to controversies within the legislative jurisdiction of these Provinces.

[1] Workmen's compensation legislation for 1932 was summarized in the November 1932 Monthly Labor Review. The 1933 legislation on this subject will be given in a later issue.

Mining.—Various amendments were made to the Saskatchewan Mines Act, the title of which was changed to "The Coal Mines Safety and Welfare Act", under which a workman may not now be employed above or below ground for over 8 hours a day except by mutual consent of employer and employee. "Exception is made of employees in an office, boarding house or bunk house, in cases of emergency, at the weekly change of shift, and where continuous or technical work must be performed." In certain cases, however, the operation of those provisions may be suspended by the Minister.

Regulations for factories, shops, and office buildings.—Certain sections of the Factory, Shop and Office Building Act of Ontario were made applicable to restaurants and bake shops, including those regulating working hours, prohibiting the employment of children under 14 years of age and of children under 16 years of age without a school certificate, providing safety measures with reference to elevators and hoists, and prohibiting the keeping of premises in such condition as to endanger safety or health. Other amendments to the act had for their purpose the bringing of such places as shoe-shine parlors and bowling alleys within the scope of the law and to control more effectually child labor in lumber yards, etc. The inspector may grant a permit for a factory to operate on a double shift. In such cases the working hours are restricted to 8 for each shift and to 16 for both shifts, and it is required that the double shift fall between 6 a.m. and 11 p.m. Women and young workers must be permitted to have at least 1 hour in each shift for a meal. The section providing that women and young workers may be employed in shops up to 10 p.m. on Saturday before a statutory holiday and from December 14 to 24 was amended to restrict their working hours to 10 a day and 60 a week. The section which provided for the inspection of houses in which articles of clothing, etc., were being made under contract was broadened to include a similar provision regarding the manufacture of any household article.

The British Columbia Shops Regulation Act was amended to limit the hours of work of children under 16 years of age to 8 a day and 48 a week.

Employees operating public vehicles.—The Public Utility Board of Manitoba was empowered by an amendment to the Highway Traffic Act of that Province to regulate the wage rates and hours of employees operating public-service vehicles.

The Public Commercial Vehicle Act of Ontario was amended to give authority to the Lieutenant-Governor in Council to regulate the working hours of drivers of commercial vehicles.

Minimum wage.—An amendment to the Minimum Wage Act of Ontario requires employers to keep records of the names, addresses, wage rates, working hours, actual earnings, and actual time spent in work of all female employees, also of the ages of those under 18.

The Minimum Wage for Women Act of Quebec was broadened to cover commercial establishments. Two members of the minimum wage commission will represent the female employees and that commission was given authority to fix a special wage scale for seasonal workers.

Apprenticeship.—As a result of an amendment the Apprenticeship Act of Ontario now provides for an apprenticeship board of three members as a substitute for the tripartite committee set up by the

principal act, and for the appointment of inspectors in addition to the chief inspector. Authorization is given the board to inquire as to the opinions of employers and employees in the specified trades concerning suggested changes in the act and regulations. No changes are allowed without notice in writing to the employers and employees concerned.

Street trades.—The Alberta Child Welfare Act was amended to include under the term "neglected child" any boy or girl under 12 years of age or any boy between 12 and 14 years of age who takes up any street trade without the consent of his parent or guardian.

Employment and unemployment.—The Quebec Employment Bureau Act, under an amendment, provides for the elimination of private fee-charging employment bureaus.

In all the Provinces with the exception of Prince Edward Island, legislation was adopted making it possible to take advantage of the 1931 Dominion Unemployment and Farm Relief Act. A measure was also enacted by the Legislature of Quebec which provides that the wages of workers on unemployment relief projects carried on under certain Dominion and Provincial statutes should not be subject to seizure for debt.

In Nova Scotia a law was enacted providing for the settlement of jobless coal miners on farms. An act in Quebec had for its objective the promotion of land settlement.

Old-age pensions.—The Manitoba and Ontario old-age pension laws were amended to enable those Provinces to avail themselves of the advantages provided under the amendment of 1931 to the Dominion act, which raised the contribution of the Dominion from 50 to 75 percent of the Provincial disbursements.

Departments of labor.—An additional section to the Department of Labor Act of Ontario authorizes an inspector in the employment of the department to order the cessation at once of any work to which any act administered by the department is applicable and which he regards as dangerous to life or property. In Nova Scotia provision was made by law for a department of labor.

COOPERATION

Development of the Cooperative Movement Throughout the World

THE "unimpaired vitality and steady growth of cooperative societies of all sorts, despite depressed economic and social conditions", was commented upon by the International Labor Office in its 1932 yearbook recently issued; this the report characterizes as "one of the most remarkable phenomena of recent years, the more so in that these organizations and undertakings owe their existence to the class which is more widely and directly affected than any other by unemployment, bad sales, marketing difficulties, falling prices and falling wages."

Confirmation of these observations is afforded by the present article, compiled from a number of sources, which covers considerably over 400,000 cooperative societies of various types in 43 countries. Of these societies, the largest proportion (about 40 percent) are credit societies, while another large group (some 36 percent) is composed of the agricultural associations; these two types together account for over three fourths of the whole number.

A combined membership of more than 100,000,000 persons is shown (in the 41 countries for which data are available). Whereas the consumers' cooperative movement forms less than 10 percent of the whole, in point of number of societies, it is much more important when membership is considered, as nearly 70,000,000 of the 100,000,000 cooperators belong to the consumers' societies.

About one fourth of the entire number of societies and more than half of the membership is in the Soviet Union.

While the number of local consumers' societies continues to diminish, the number of individual members shows an increase in nearly every country studied. The amount of sales (in terms of dollars and cents) also rose in some countries, in spite of the world-wide low prices, and in numerous instances the actual volume of goods handled increased even though the amount of sales (in terms of money) fell. In one case, that of the cooperative wholesale society of the Netherlands, the amount of sales in 1932 was the highest ever attained by that organization.

The wholesale societies of the 20 countries for which figures are at hand in 1932 transacted business to the amount of considerably over three fourths of a billion dollars. While few new manufacturing enterprises are being started, the value of goods manufactured in 1932 by the wholesale societies of 7 countries exceeded $197,000,000.

Comparative Development of Various Forms of Cooperation

TABLES 1 and 2 show the development of the various phases of the cooperative movement throughout the world in the latest year for which data are available.

Table 1 includes over 400,000 societies of various types, more than three fourths of which are either credit or agricultural societies. It is seen that the various branches of the movement are not evenly developed in each country. Thus, as regards number of societies, agricultural cooperation predominates in such countries as Australia, Austria, Canada, France, Japan, Norway, Sweden, Switzerland, and Soviet Russia, while the credit societies are predominant in number in Bulgaria, Czechoslovakia, Germany, India, Netherlands, Rumania, and Yugoslavia. Only in Denmark, Hungary, Italy, and Spain do the consumers' societies form the largest group.

TABLE 1.—NUMBER OF COOPERATIVE SOCIETIES OF VARIOUS TYPES, IN SPECIFIED COUNTRIES

Country	Year	Consumers' societies	Credit societies	Agricultural societies	Workers' productive and labor societies	Housing and construction societies	Other types	Total
Argentina	1931	44	18	132	32	------	48	274
Armenia	1931	112	41	161	------	------	------	314
Australia	1931	166	------	249	------	------	------	415
Austria [1]	1931	208	529	3,580	(2)	396	(2)	4,713
Belgium	1931	396	200	388	50	128	1,605	2,767
Brazil [1]	1931	(2)	210	12	(2)	(2)	280	502
Bulgaria	1931	131	1,837	298	248	185	891	3,590
Canada	1931	382	181	518	------	------	219	1,300
China	1931	(2)	(2)	(2)	(2)	(2)	(2)	1,576
Czechoslovakia	1930	1,840	7,334	4,348	------	1,590	1,434	16,546
Denmark [1]	1931	1,925	43	1,502	(2)	15	5	3,490
Estonia [1]	1931	235	313	362	(2)	(2)	(2)	910
Federated Malay States	1931	------	90	3	70	------	1	164
Finland [1]	1931	529	1,410	1,412	(2)	(2)	176	3,527
France [1]	1931	1,237	11,397	17,500	340	242	25	30,741
Germany	1932	1,674	21,607	18,821	717	3,813	5,163	51,795
Great Britain	1931	1,226	(2)	1,374	74	283	127	3,084
Greece	1930	188	4,351	1,185	------	------	[3] 1,663	7,387
Hungary [1]	1930	1,649	1,022	550	71	(2)	1	3,293
Iceland [1]	1931	37	(2)	(2)	(2)	(2)	(2)	37
India	1929–30	(4)	[5] 104,187	(4)	(4)	(4)	(4)	104,187
Italy	1932	3,240	(2)	1,209	1,550	696	(2)	6,695
Japan [1]	1932	250	1,355	3,827	(2)	(2)	(2)	5,432
Java	1931	830	457	41	3	------	68	1,399
Latvia [1]	1931	370	168	985	(2)	(2)	63	1,586
Lithuania	1931	254	454	425	------	------	329	1,462
Luxemburg [1]	1931	(2)	50	796	(2)	(2)	68	914
Morocco [1]	1931	(2)	5	11	(2)	(2)	(2)	16
Netherlands [1]	1931	229	1,288	944	(2)	(2)	(2)	2,461
New Zealand [1]	1932	(2)	(2)	180	(2)	(2)	(2)	180
Norway	1931	[6] 434	------	[7] 2,637	------	------	------	3,071
Palestine [1]	1931	108	15	97	56	(2)	(2)	276
Poland	1931	6,292	6,440	2,734	449	905	774	17,594
Portugal	1929	150	------	------	------	------	121	271
Rumania	1931	1,602	5,225	2,921	------	------	195	9,943
Siam	1929–30	------	128	------	------	------	------	128
South Africa, Union of	1932	(2)	(2)	[5] 437	(2)	(2)	(2)	437
Soviet Union	1930	9,779	------	[8] 78,064	18,363	------	------	106,206
Spain [1]	1931	326	(2)	54	(2)	(2)	171	551
Straits Settlements	1929	------	29	------	------	------	------	29
Sweden	1931	1,568	444	3,562	177	5,580	4,048	15,379
Switzerland	1931	1,163	727	5,859	57	266	3,799	11,871
Yugoslavia	1931	[9]	4,407	[10] 2,514	136	89	337	7,483
Total	------	38,574	175,962	159,692	22,393	14,188	21,611	[11] 433,906

[1] Data cover only societies affiliated to the various central organizations.
[2] No data.
[3] Includes "urban societies" of all types.
[4] Included with credit societies.
[5] Includes all societies of other types also.
[6] Data cover only societies affiliated to N.K.L.
[7] Includes fishermen's societies also.
[8] Year 1928.
[9] Included with agricultural societies.
[10] Includes consumers' societies also.
[11] Not the exact sum of the totals given, as in 1 country the distribution of the total number of societies by type, was not known.

While credit and agricultural societies lead in number of societies, the situation is quite different when number of cooperators is considered. Table 2 shows that the consumers' cooperative movement leads as regards total number of members, nearly 70 million persons being affiliated with the cooperative stores in the 30 countries covered by the data. The agricultural associations are next in order, but their membership totals only some 21 million persons.

About one fourth of the total number of societies and more than half of the members are in the Russian cooperative movement.

TABLE 2.—MEMBERSHIP OF VARIOUS TYPES OF COOPERATIVE SOCIETIES IN SPECIFIED COUNTRIES

Country	Year	Consumers' societies	Credit societies	Agricultural societies	Workers' productive and labor societies	Housing societies	Other types	Total [1]
Argentina	1931	44,297	4,502	16,914	10,768	----	(2)	76,481
Armenia	1931	152,440	37,057	26,905	----	----	----	216,402
Australia	1929	145,486	----	[3] 121,015	----	----	----	266,501
Austria [4]	1931	350,000	(2)	403,000	(2)	70,300	(2)	823,300
Belgium [4]	1931	439,492	(2)	128,098	(2)	(2)	(2)	567,590
Brazil [4]	1931	(2)	(2)	47,000	(2)	(2)	79,645	126,645
Bulgaria	1931	76,927	342,489	69,253	64,589	8,480	188,659	750,397
Canada	1931	70,222	45,477	480,362	----	----	163,000	759,061
China	1931	(2)	(2)	(2)	(2)	(2)	(2)	65,433
Czechoslovakia	1930	910,705	939,104	[5] 300,000	(2)	(2)	(2)	2,149,809
Denmark [4]	1931	396,500	16,785	188,000	(2)	7,000	(2)	608,285
Estonia [4]	1931	60,000	23,400	(2)	(2)	(2)	(2)	83,400
Federated Malay States	1931	----	15,030	153	10,651	----	45	25,879
Finland [4]	1931	470,414	145,708	277,200	(2)	(2)	205,400	1,098,722
France [4]	1931	1,576,256	732,333	1,000,000	23,000	18,300	5,000	3,354,889
Germany [4]	1931	4,990,824	(2)	4,000,000	(2)	722,718	(2)	9,713,542
Great Britain	1931	6,559,000	(2)	[6] 288,179	31,405	28,968	----	6,907,552
Hungary [4]	1931	[7] 804,821	399,005	65,565	[8] 17,712	(2)	[7] 190,000	1,477,103
Iceland	1931	[4] 7,448	(2)	(2)	(2)	(2)	(2)	7,448
India	1930	[9]	[9] 4,429,428	[9]	[9]	[9]	[9]	4,429,428
Italy	1930	[10] 900,000	(2)	635,507	118,500	49,876	11,037	1,714,920
Japan [4]	1932	20,000	768,623	140,633	(2)	(2)	(2)	929,256
Latvia	1930	50,320	[11] 15,000	54,030	----	----	93,237	212,587
Lithuania [4]	1931	18,000	11,000	9,733	(2)	(2)	4,333	43,066
Luxemburg [4]	1931	(2)	4,879	50,575	(2)	(2)	[8] 2,453	57,907
Morocco [4]	1931	(2)	[7] 1,900	4,700	(2)	(2)	(2)	6,600
Netherlands [4]	1931	[7] 222,053	223,291	65,000	(2)	(2)	(2)	510,344
New Zealand [4]	1932	(2)	(2)	91,494	(2)	(2)	(2)	91,494
Norway	1931	115,451	(2)	[6] 113,364	(2)	(2)	(2)	228,815
Palestine [4]	1931	(2)	[7] 18,586	[12] 270	1,000	(2)	(2)	19,856
Poland [4]	1931	825,887	[12]	[14] 1,060,465	(2)	9,632	(2)	1,895,984
Rumania	1931	237,812	1,127,224	259,810	----	----	15,806	1,640,652
Siam	1930	----	2,157	----	----	----	----	2,157
South Africa, Union of	1932	(2)	(2)	(2)	(2)	(2)	(2)	85,000
Soviet Union	1930	48,904,200	----	[11] 8,508,100	2,002,000	----	----	59,414,300
Spain [4]	1931	123,162	(2)	[8] 3,000	(2)	(2)	[8] 45,000	171,162
Straits Settlements	1929	----	5,933	----	----	----	----	5,933
Sweden [4]	1931	481,319	(2)	50,000	(2)	15,945	(2)	547,264
Switzerland [4]	1931	376,286	48,318	239,234	(2)	(2)	3,932	667,770
United States	1929	206,387	[13] 301,109	[12] 3,200,000	1,405	2,435	78,819	3,790,155
Yugoslavia	1931	59,302	(2)	(2)	(2)	(2)	(2)	[15] 855,836
Total	----	69,595,011	9,658,338	21,897,559	2,281,030	933,654	1,086,366	[16] 106,398,925

[1] Figures in this column contain considerable duplication, due to membership of the same persons in several societies of different types.
[2] No data.
[3] Includes also membership of a few societies of other types.
[4] Data cover only societies affiliated to the various central organizations.
[5] Approximate membership of societies affiliated to central organization in 1929.
[6] Includes membership of fishery societies.
[7] Data are for 1930.
[8] Data are for 1928.
[9] Included with credit societies.
[10] Approximate.
[11] Approproximate membership of societies affiliated to central organization in 1928.
[12] Data are for 1932.
[13] Included with agricultural societies.
[14] Includes membership of credit societies.
[15] Distribution of other types of societies than consumers' societies not known.
[16] Not the exact sum of the totals given, since in several countries the distribution of total membership by type of society was not known.

Position of Consumers' Cooperation

DURING the depression period the consumers' cooperative movement has had to contend not only with the economic results of the depression but also with concerted attacks from the private traders. In many countries the nonprofit character of the cooperative societies has been recognized by law and their net trading surplus has been regarded as savings made by the pooling of the members' purchasing power, not as profits in the ordinary sense, and the societies have therefore been exempt from government taxes on profits or income. The long-continued depression, which has intensified budgetary and revenue difficulties of the governments in the various countries, and the increasingly bitter attacks of private merchants have resulted in efforts to bring about the passage of legislation which would subject the cooperative societies to all of the taxes and restrictions to which profit traders are subject and even in some cases to additional burdens. Such legislation is being pushed in Austria, France, Germany, Great Britain, Netherlands, etc.

The growth of consumers' cooperation, notwithstanding these adverse conditions, is shown by the sales of the local consumers' societies in the two latest years for which data are available (table 3). Aside from the Soviet Union, where the consumers' cooperative movement is a recognized part of the Government, Great Britain is far in the lead.

Table 3 (p. 1408) shows the tendency toward a decreasing number of local societies (generally as a result of a definite policy). In nearly every country, however, an increased membership is shown. Although in view of the fall in the price levels, a lower volume of sales would be expected, an increase in the amount of business is shown in Estonia, Finland, France, Lithuania, Norway, and Sweden.

Canada.—The growth of the depression in extent as well as in intensity, it is pointed out in the annual report of the Cooperative Union of Canada for 1932, is reflected in the statistics of the consumers' cooperative movement of that country. The sales of the affiliated societies declined $243,231, as compared with 1931, indicating a "still further diminution of purchasing power" in 1932. "A considerable portion of the business of many of the retail societies has consisted of relief orders."

The aggregate trading surplus of the reporting societies was $117,895, or $67,221 less than in 1931. Most of this decline was due to the falling off of the net gain of the largest consumers' society in Canada, whose members, mainly miners, have been particularly affected by the depression in the mining industry.

Germany.—In Germany, at the beginning of 1933, only 1,674 of the 51,795 cooperative societies of all types were consumers' cooperative associations. Of these, about 1,200 were affiliated to two large central unions—the Central Union of German Consumers' Societies (*Zentralverband deutscher Konsumvereine*) and the German Union of Consumers' Societies (*Reichsverband deutscher Konsumvereine*)—the first having, in 1932, 949 member societies and the second some 270 members. The Zentralverband is composed mainly of industrial workers while the Reichsverband has a large membership among the officials and civil-service employees.

TABLE 3.—MEMBERSHIP AND BUSINESS OF LOCAL CONSUMERS' SOCIETIES IN SPECIFIED COUNTRIES

[Conversions into United States currency on basis of par value]

Country	Year	Number of societies	Number of members	Sales
Argentina	1930-31	35	44,297	$12,760,612
Australia	1929	166	145,486	37,413,276
	1931	166	(2)	37,409,433
Austria [1]	1930	115	263,137	20,833,401
	1931	222	267,665	20,718,111
Belgium	1931	103	444,159	29,242,668
Bulgaria	1931	131	77,084	2,534,726
Canada [1]	1931	31	8,122	2,874,746
	1932	27	8,746	2,631,515
Czechoslovakia: Ustredni svaz ceskoslovenskych druzstev	1930	1,035	461,541	39,044,653
	1932	885	488,000	37,888,000
Denmark	1931	[3] 1,791	[3] 331,500	(2)
	1932	1,819	(2)	65,392,000
Estonia [1]	1930	238	34,561	4,700,184
	1931	235	44,828	5,894,458
Finland: K.K. [4]	1931	112	241,633	26,888,400
	1932	(2)	248,328	27,382,320
Y.O.L. [4]	1931	420	228,781	37,996,400
	1932	418	232,058	38,802,960
France	1929	3,296	2,288,838	149,409,000
Germany:	1931	3,155	2,452,055	157,834,283
Zentralverband	1931	985	2,940,308	276,117,209
	1932	949	2,895,985	224,719,142
Reichsverband	1931	270	750,000	42,931,435
Great Britain [1]	1931	1,336	6,626,429	1,022,360,695
Hungary [1]	1929	1,661	672,295	20,027,363
Iceland	1929	39	7,676	4,891,536
	1931	40	8,000	(2)
Italy	1930	3,329	(2)	78,900,000
	1931	3,240	692,917	70,543,512
Latvia	1930	295	50,320	6,079,500
	1931	290	44,229	4,811,494
Lithuania	1929	214	35,617	1,211,554
	1931	214	33,500	2,662,000
Netherlands	1931	414	299,786	23,346,487
Norway [1]	1931	434	115,451	27,683,328
	1932	447	121,231	28,180,414
Poland	1931	1,245	452,881	23,552,387
Portugal	1929	150	33,964	1,547,000
Rumania	1931	1,602	237,812	5,074,800
Soviet Union	1932	(2)	73,100,000	10,815,000,000
Spain	1931	279	59,302	6,669,668
Sweden [1]	1931	802	481,319	93,264,000
	1932	786	512,968	94,005,074
Switzerland	1931	846	399,291	67,705,542
Yugoslavia	1931	78	61,427	669,072
United States	1929	656	204,368	64,665,369

[1] Data are for societies affiliated to central organization.
[2] No data.
[3] Data are for 1930.
[4] Initials of name of central union, by which that organization is commonly known.

Together these organizations have formed a combination of some 3,750,000 members (not counting other members of the family), or about 6 percent of the total population of Germany. The total sales of the movement in 1931 amounted to 1,340,000,000 marks (about $319,000,000).

Not only have these organizations supplied their members through the retail cooperative stores, but they have also manufactured a considerable volume of goods. Thus, the manufactures of the 2 central unions and their local societies amounted to 500 million marks ($119,000,000) in 1931.

Naturally, such a volume of business would constitute formidable competition for private dealers; and the latter have attacked the cooperative movement from several directions for a long time, even forming an association for the purpose.

The depression, felt very severely among the working class which forms the greatest proportion of the cooperative membership, has

had its effect upon the consumers' cooperative societies. Whereas, in 1932, 52 new societies were founded, 73 organizations were dissolved; 20 of the dissolutions were due to bankruptcy. The International Labor Office (Geneva) in its review of the German cooperative movement for 1932 points out that "the year was a particularly critical one for this group."

By a series of decrees culminating in that of May 15, 1933, the Hitler government has taken over the control of the consumers' cooperative movement in that country and what its fate will be is unknown. As a result of this step, the question of the admission of delegates from the government-controlled German societies to a recent special conference of the International Cooperative Alliance was the subject of considerable debate. The delegates were finally admitted, but certain speeches and actions by them were regarded by the other members of the conference as violative of the Alliance principle of political neutrality, and as a result of the ensuing discussion the German delegates left the meeting. The question of the recognition of the cooperative movement in Germany in its new status remains in abeyance, to be settled at some future meeting.

Great Britain.—The People's Yearbook, 1933, points out that there are in Great Britain about 11,000,000 families. Since the membership of the consumers' cooperative movement was 6,590,020 in 1931, "well over half of the families in the country" were members of the cooperative stores. In that year £5,078,031 ($24,712,238) was returned to the members as interest on their share capital and £21,348,269 ($103,891,351) as dividends on purchases, or a total of £26,426,300 ($128,603,589) which would otherwise have gone in profits to private traders.

Since 1913 the number of retail cooperative societies in the Cooperative Union has decreased from 1,387 to 1,188 in 1931, due to a policy of amalgamation of existing societies in the same district. The number of individual cooperators, however, has in the same period risen from 2,878,648 to 6,590,020, an increase of nearly 130 percent.

While the depression has been keenly felt by the cooperative societies, those in Scotland have been harder hit than those in England, as conditions have been worse in the former country. At the end of 1931, the English Cooperative Wholesale Society not only had been able to maintain the wages of its employees at the 1929 level but had even increased its labor force. In the whole consumers' movement the number of employees increased 2 percent from 1930 to 1931, while wages went up 3 percent. It is pointed out, also, that very little short time or part time is worked in the cooperative movement.

Italy.—Italy is another country in which the autonomy of the cooperative movement has been destroyed. In 1925, the Fascists took over the control of the whole movement, making it part of the corporative State and setting up a national organization—the Ente Nazionale Cooperative—with which the local societies must affiliate. The Italian consumers' cooperative movement had formerly been characterized by a multiplicity of small societies, but between 1921 and 1928 nearly 14,000 societies disappeared. The Fascist cooperative movement has never been recognized by the International Cooperative Alliance, and its delegates are not admitted to the meetings of that body.

According to a recent report from the American consul at Milan, there are 14 Provinces in Italy in which there are no consumers'

cooperative societies. The report notes a further decrease in the number of cooperative societies since 1928, the number falling from 3,333 in that year to 3,168 in 1930. This reduction was due partly to failures, partly to liquidations, and "partly as a result of an intelligent concentration policy carried out by the directors of the cooperative movement." Government supervision, it is stated, was made necessary because of the fact that "the practices of some of the cooperatives were very lax. Further, dealers engaged in trade for profit objected to the uncontrolled expansion and consequent competition of the cooperatives."

The report states that although the Government controls the movement, it makes no special regulations regarding the cooperative stores and they are subject to the same restrictions as private stores. By a decree of May 10, 1930, the opening of any new food stores except cooperative stores is prohibited for a period of 5 years.

Norway.—The International Labor Office reports that "in spite of the depression which is strongly felt throughout the country, the consumers' cooperative movement is making steady progress in Norway."

Relation to Total Population

The infiltration of consumers' cooperation into the economic life of the various countries is indicated in table 4, which shows the relation of the cooperative membership to the total population. It is at once evident that a far larger portion of the populace is served by the cooperative stores in the Soviet Union than in any other country, more than two fifths of the people being members of consumers' societies. The next in rank is Great Britain, which was the cradle of consumers' cooperation; but that country is closely followed by Finland and Denmark.

TABLE 4.—DEVELOPMENT OF CONSUMERS' SOCIETIES IN PROPORTION TO POPULATION IN VARIOUS COUNTRIES

Country	Year	Population	Membership of consumers' societies	
			Members	Percent of population
Argentina	1931	11,441,964	44,297	0.39
Australia	1929	6,476,032	145,486	2.25
Austria	1931	6,722,395	[1] 350,000	5.21
Belgium	1931	8,129,824	444,159	5.46
Bulgaria	1931	6,067,000	77,084	1.27
Canada	1931	10,376,786	70,222	.68
Czechoslovakia	1930	17,726,158	910,705	5.14
Denmark	1931	3,550,651	[1] 396,500	11.17
Estonia	1931	1,110,538	60,000	5.40
Finland	1932	3,634,047	[1] 480,386	13.22
France	1931	41,834,923	2,452,055	5.86
Germany	1931	62,348,782	4,990,824	8.00
Great Britain	1931	44,790,485	6,559,000	14.64
Hungary	1930	8,683,740	804,821	9.27
Iceland	1931	108,644	[1] 8,000	7.36
Italy	1930	42,118,835	900,000	2.14
Japan	1932	64,447,724	[1] 20,000	.03
Latvia	1930	1,900,045	50,320	2.65
Lithuania	1931	2,340,038	33,500	1.43
Netherlands	1931	8,031,679	299,786	3.73
Norway	1932	2,817,124	[1] 121,231	4.30
Poland	1931	32,100,000	825,887	2.57
Portugal	1929	6,190,999	33,964	.55
Rumania	1931	18,025,237	237,812	1.32
Soviet Union	1932	164,000,000	73,100,000	44.57
Spain	1931	23,817,000	123,162	.52
Sweden	1932	6,141,671	512,968	8.35
Switzerland	1931	4,066,400	399,291	9.82
United States	1929	122,775,046	206,387	.17
Yugoslavia	1931	13,930,918	59,302	.43

[1] Memberships of societies affiliated to central organization or organizations.

Proportion of Retail Trade Done by Cooperative Societies

Table 5, taken from an article in the August 1933 issue of the Review of International Cooperation, shows the proportion of the total retail trade of each of six countries handled by small independent dealers, department stores, chain stores, cooperative societies, and other forms of retailing. It is evident that the consumers' cooperative societies handle a considerable proportion of the retail trade in Great Britain. The chief difference between the figures shown for that country and the United States lies in the relative positions of the cooperative societies and the department stores. In both countries the chain-store systems are strong.

In all of the countries the largest proportion of the trade is still done by the small independent dealer with a single store. This is especially true in France and Germany. In the latter country, it is explained, the growth of the large-scale enterprises (chain stores, department stores, and cooperative movement) has taken place to a considerable extent at the expense of the small shopkeeper. "These tendencies in the development of retail distribution in Germany explain to a certain extent the hostile attitude of the present German Government, which derives its support from the middle classes, including a large percentage of ruined shopkeepers, towards large-scale retailing and the consumers' cooperative movement in particular."

The report points out that the figures in the table hardly reflect the full importance of the cooperative trade, as they cover all lines of retail trade in the country. In certain lines of retailing the share of the cooperative societies is considerably greater.

According to the information collected by the International Cooperative Alliance, the cooperative movement in Germany controls approximately 10 percent of the total supply of foodstuffs and in meat trade its share is even greater. In Great Britain nearly a third of the bread supply and 20 percent of the meat supply passes through the cooperative societies. In Switzerland the cooperatives control approximately 11½ to 12 percent of the trade in foodstuffs, and in Sweden and Finland, more particularly in the latter country, the proportion is even greater, approximately 30 percent of the total retail trade. These figures, however, show that there is still a considerable margin left at the expense of which the cooperative trade can develop even in those countries where its achievements during the last few years have been remarkable.

TABLE 5.—PERCENT OF TOTAL RETAIL TRADE IN SPECIFIED COUNTRIES HANDLED THROUGH EACH TYPE OF RETAILING

Type of trader	Percent of retail trade done through specified retail channel in—					
	Great Britain	United States	Germany	France	Sweden	Netherlands
Cooperative societies	12.4	0.4	4.6	1.4	7.6	1.0
Independent dealers	57.1	59.0	85.2	87.3	76.2	81.3
Department stores	8.6	16.0	4.3	5.7	4.0	8.0
Chain systems	17.2	18.0	3.7	5.0	2.0	4.8
Other	4.7	6.6	2.2			4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Cooperative Wholesale Societies

Table 6 shows the sales of the cooperative wholesale societies in the various countries. In 1932 in the 20 countries shown, a wholesale business of considerably over three fourths of a billion dollars was done through cooperative channels. Here again, a few countries showed increases in money sales, in spite of falling prices. The 1932 figure shown for De Handelskamer, wholesale society of the Dutch con-

sumers' cooperative movement, is higher than any ever before recorded for that organization. This was accomplished in spite of a fall of 18 points in the wholesale price index number. Half of the member societies of this wholesale showed increases in membership during the year.

TABLE 6.—BUSINESS DONE BY COOPERATIVE WHOLESALE SOCIETIES, 1931 AND 1932
[Conversions into United States currency on basis of par value]

Country	Year	Number of affiliated societies	Amount of business
Austria	1931	135	$12,541,555
	1932	[1]	11,695,698
Belgium	1931	71	5,286,880
	1932	[1]	5,098,271
Bulgaria: "Napred"	1931	58	3,070,340
	1932	[1]	3,001,369
Canada:			
Alberta Cooperative Wholesale	1932	20	18,321
Manitoba Cooperative Wholesale	1931	52	274,321
	1932	55	325,504
Saskatchewan Cooperative Wholesale	1931	35	488,174
	1932	36	404,869
Czechoslovakia:			
G.E.C.[2]	1931	163	9,427,588
	1932	[1]	9,140,788
V.D.P.[2]	1931	340	14,128,604
	1932	[1]	14,542,207
Denmark:			
F.D.B.[2]	1931	[1]	34,108,000
	1932	1,819	36,222,351
Ringkobing	1931	69	816,125
	1932	[1]	777,200
Estonia: E.T.K.[2]	1931	235	4,034,543
	1932	[1]	3,046,329
Finland:			
O.T.K.[2]	1931	110	14,238,000
	1932	[1]	14,500,080
S.O.K.[2]	1931	420	21,760,200
	1932	[1]	21,286,440
France	1931	1,377	29,400,000
	1932	[1]	32,418,400
Germany:			
G.E.G.[2]	1931	920	101,107,097
	1932	908	80,879,840
"Gepag"	1931	277	16,745,792
	1932	[1]	13,041,211
Great Britain:			
English wholesale	1931	1,084	396,621,156
	1932	[1]	398,827,340
Scottish wholesale	1931	251	80,552,002
	1932	[1]	78,552,863
Hungary: "Hangya"	1931	1,647	10,178,164
	1932	[1]	11,123,640
Italy	1931	[1]	5,055,214
	1932	251	6,076,720
Netherlands	1931	[1]	7,088,129
	1932	288	7,439,529
Norway	1931	454	8,040,124
	1932	[1]	8,230,440
Poland: "Spolem"	1931	903	9,212,345
	1932	[1]	8,323,168
Sweden	1931	802	39,673,761
	1932	786	40,053,576
Switzerland:			
V.S.K.[3]	1931	527	32,376,338
	1932	529	32,077,689
Konkordia	1931	[3] 54	779,316
	1932	52	712,387
V.o.l.G.[3]	1931	280	7,424,983
	1932	[1]	7,539,609
United States:			
Central Cooperative Wholesale	1931	99	1,509,752
	1932	98	1,309,698
Eastern Cooperative Wholesale	1931	10	268,044
Farmers' Union State Exchange (Nebraska)	1931	[3] 165	1,571,028
	1932	[4] 200	1,192,838
Scandinavian Cooperative Wholesale [5]	1931	5	7,526,951
	1932	5	7,842,091

[1] No data.
[2] Initials of name of wholesale society, by which that organization is commonly known.
[3] Data are for 1930.
[4] Approximate.
[5] Owned jointly by the cooperative wholesale societies of Denmark, Norway, and Sweden, and the two wholesales of Finland.

Production by Consumers' Societies

Where production is carried on, this is usually done by the productive departments of the cooperative wholesale society or by a separate organization formed for the purpose. The local consumers' societies rarely undertake the manufacture of products other than bakery goods, smoked or cooked meats, etc.

It is the aim of the cooperative movement eventually to produce or manufacture all of the goods its members need, and some of the wholesale societies have made a good start in that direction. The leading countries as regards cooperative production of consumers' goods are Great Britain and Germany, but Czechoslovakia and Finland also manufacture a wide variety of commodities.[1]

Figures as to value of goods produced by the cooperative wholesale societies in 1932 are available for only a few countries, shown in table 7.

TABLE 7.—VALUE OF GOODS PRODUCED BY COOPERATIVE WHOLESALE SOCIETIES, 1931 AND 1932

[Conversions into United States currency on basis of par value]

Country	Value of goods produced	
	1931	1932
Denmark	(1)	$10,311,905
Finland: O.T.K.[2]	$1,668,240	1,902,600
France	1,719,625	1,813,921
Germany: G.E.G.[2]	34,587,753	30,803,934
Great Britain:		
English wholesale	111,243,542	115,037,758
Scottish wholesale	24,590,643	24,109,459
Norway	3,463,311	3,535,619
Sweden	16,107,336	10,248,320

[1] No data.
[2] Initials of name of wholesale society, by which that organization is commonly known.

Cooperative Employment

That the consumers' cooperative movement is an employer of no inconsiderable proportions is shown in table 8. This table shows a total of more than three fourths of a million persons obtaining their livelihood through the cooperative movement in 13 countries. Of these more than half are employed in the Russian movement and over one third in the British societies.

[1] For an enumeration of the articles manufactured cooperatively in the various countries see Monthly Labor Review, October 1932 (pp. 879, 880).

TABLE 8.—PERSONS EMPLOYED IN THE COOPERATIVE MOVEMENT

Country	Data cover—	Year	Number of employees
Belgium	Societies affiliated to central union	1929–30	6,582
	Productive societies	1929–30	1,150
Canada	Societies affiliated to central union	1932	281
China	All consumers' societies	1931	11,612
Czechoslovakia	do	1932	12,700
Finland	O.T.K	1931	682
France	Central union	1931	1,043
Germany	Societies affiliated to Zentralverband	1932	48,095
Great Britain	Societies affiliated to central union	1931	263,037
Netherlands	"Hangya"	1932	439
Norway	Societies affiliated to central union	1932	2,704
Soviet Union	All consumers' societies	1932	416,992
Sweden	Central union	1931	2,998
Switzerland	do	1932	659
Total			768,974

SOURCES.—This article is based on data from People's Yearbook, 1933; International Labor Directory, Part IV (Geneva), 1933; Schweiz. Konsumvereine (Basel), July 1, 1933, and current issues of Cooperative Information (International Labor Office, Geneva), and Review of International Cooperation (London). In addition, other data for specific countries were obtained from the following sources: *Argentina.*—Schweiz. Konsumvereine (Basel), Apr. 1, 1933. *Austria.*—Konsumgenossenschaftliche Rundschau, Apr. 1, 1933. *Belgium.*—Le Coopérateur Belge, Mar. 12, 1933; and Great Britain, Department of Overseas Trade, No. 46: Economic conditions in Belgium in 1932. *Bulgaria.*—Cooperative Information (Geneva), No. 4, 1933. *Canada.*—Quebec, Department of Municipal Affairs, Bureau of Statistics, Statistical Yearbook, 1932; Dominion Bureau of Statistics, The Canada Year Book, 1932, Ottawa, 1932; and The Canadian Cooperator, August 1933. *Czechoslovakia.*—Rapports de l'Office de Statistique, XIII[e] Année (1932), No. 93; XIV[e] Année (1933), No. 3. *Denmark.*—Kooperatören, Häfte 5, 1933, July 1, 1933; and Review of International Cooperation, February 1933. *Federated Malay States.*—Cooperative Information (Geneva), No. 13, 1932. *Finland.*—Bank of Finland Monthly Bulletin, March 1933. *France.*—Le Coopérateur Belge, Mar. 26, 1933; and Review of International Cooperation, June 1933; Revue des Études Coopératives (Paris), July-September, 1933. *Germany.*—Jahrbuch des Zentralverbandes Deutcher Konsumvereine, Hamburg, 1933; Konsumgenossenschaftliche Rundschau, Apr. 22, 1933; Cooperative Information (Geneva) No. 2, 1933; and Reports from C. W. Gray, American consul at Berlin, Oct. 10, 1932, and June 13 and 24, 1933. *Great Britain.*—Ministry of Labor Gazette, issues of October and December 1932 and January 1933; and The Producer, October 1932, and March and April 1933. *Greece.*—Annals of Collective Economy, June-August 1932. *India.*—Statistical Abstract for British India, London, 1932 (Cmd. 4109). *Italy.*—Ministero delle Corporazioni, Sindacato e Corporazione, January 1933; and report from E. Talbot Smith, American consul at Milan, May 24, 1933. *Java.*—Indisch Verslag 1932—II Statistisch Jaaroverzicht van Nederlandsch-Indië over het jaar 1931, Batavia, 1932. *Netherlands.*—Le Coopérateur Belge, Mar. 26, 1933. *Norway.*—Statistiske Central-byra, Statistisk Årbok for Kongeriket Norge, 1932, Oslo, 1932; Kooperatören, Feb. 1, 1933, and May 15, 1933; and Schweiz. Konsumvereine, Apr. 1, 1933. *South Africa.*—Review of International Cooperation, February 1933. *Soviet Union.*—Amtorg Trading Corporation, Information Department, Economic Review of the Soviet Union (New York City), Nov. 15, 1932, p. 401; and Information Bulletin of Centrosoyus, May 25, 1933. *Sweden.*—Commerce Reports, Mar. 18, 1933; Kooperatören, No. 10-11, 1933; Socialstyrelsen, Koopérativ Verksamhet i Sverige, ar 1931, Stockholm, 1933; and Le Coopérateur Belge, July 9, 1933. *Switzerland.*—Verband Schweiz. Konsumvereine (V.S.K.), Rapports et comptes sur l'activité des organes de l'union en 1932, Basel, 1933; Bureau Fédéral de Statistique, Annuaire statistique de la Suisse 1931; and Le Coopérateur Belge, Mar. 26, 1933.

Status of Building and Loan Associations, 1932

DATA furnished to the Bureau of Labor Statistics by the United States Building and Loan League (Cincinnati) show that at the end of 1932 there were in the United States 10,997 building and loan associations with a combined membership of 10,114,792 and resources aggregating $7,750,491,084. Mortgage loans outstanding totalled $6,394,725,418, or 82.5 percent of the assets. From 1931 to 1932 there was a decrease of 445 societies, 1,223,909 members, and $666,884,521 in assets.

Table 1 shows the number of associations, the membership, and the total assets of the associations in each State at the end of 1932. Pennsylvania leads in number of societies, Ohio in number of members, and New Jersey in amount of assets.

TABLE 1.—MEMBERSHIP AND ASSETS OF BUILDING AND LOAN ASSOCIATIONS IN 1932, BY STATES

State	Number of associations	Number of members	Total assets	State	Number of associations	Number of members	Total assets
Alabama	37	36,230	$25,772,240	Nebraska	83	190,600	$124,307,312
Arizona	8	6,030	4,247,141	Nevada	3	1,665	1,183,930
Arkansas	56	50,000	35,498,145	New Hampshire	29	16,613	14,076,044
California	188	494,000	407,146,357	New Jersey	1,553	985,470	1,146,108,891
Colorado	58	55,000	38,472,204	New Mexico	17	4,950	4,717,489
Connecticut	43	32,376	26,818,269	New York	299	531,216	423,676,167
Delaware [1]	44	20,500	16,118,223	North Carolina	222	81,897	75,894,023
Dist. of Columbia	26	90,388	87,420,000	North Dakota	22	19,650	13,135,969
Florida	65	11,400	14,369,063	Ohio	762	2,213,531	1,097,526,114
Georgia	40	18,893	7,265,368	Oklahoma	82	129,339	113,251,396
Hawaii	11	12,534	5,209,278	Oregon	22	33,800	19,645,142
Idaho	14	7,650	5,039,612	Pennsylvania	2,957	941,682	1,044,256,443
Illinois	905	807,800	437,261,885	Rhode Island	9	49,499	34,324,701
Indiana	388	375,700	270,857,685	South Carolina [2]	132	30,000	24,500,000
Iowa	74	62,320	44,849,730	South Dakota	21	10,314	6,241,600
Kansas	151	174,482	116,162,630	Tennessee [2]	40	23,470	17,387,000
Kentucky	161	181,800	118,475,594	Texas	144	157,215	114,631,153
Louisiana	101	181,475	159,480,185	Utah	23	74,023	50,287,421
Maine	36	27,565	24,818,627	Vermont	14	6,063	5,495,121
Maryland [2]	1,075	300,000	197,500,000	Virginia	85	62,100	56,321,016
Massachusetts	227	467,829	527,360,936	Washington	66	205,038	64,973,551
Michigan	66	218,235	152,933,382	West Virginia	60	53,480	35,804,108
Minnesota	75	95,843	40,746,403	Wisconsin	184	252,773	260,548,326
Mississippi	46	24,537	16,679,871	Wyoming	11	17,850	9,509,864
Missouri	235	237,200	193,034,550				
Montana	27	32,767	19,150,925	Total	10,997	10,114,792	7,750,491,084

[1] Data are for 1931.
[2] Figures estimated.

As compared with 1931 all of the jurisdictions except Connecticut, District of Columbia, Georgia, Hawaii, Nevada, and Vermont, showed a decrease in assets, and all but District of Columbia, Georgia, Nevada, and Rhode Island a decrease in membership.

Table 2 shows the number of failures during the past 3 depression years and the estimated loss involved. With the drop in the number of failures, the table shows that the liabilities and the amount and percent lost through the failure of the societies have also decreased each year.

TABLE 2.—LIABILITIES OF FAILED ASSOCIATIONS AND AMOUNT AND PERCENT OF ESTIMATED LOSS, 1930 TO 1932

Year	Number of failed associations	Liabilities	Estimated loss	
			Amount	Percent of total assets
1930	190	$80,437,508	$24,676,059	0.2795
1931	126	61,908,529	22,327,842	.2653
1932	122	52,818,387	20,337,225	.2624

Table 3 shows the trend of development of the associations since 1920. The number of societies increased steadily each year up to 1927, since which time each successive year has shown a decline. The membership and assets also showed a steady increase which did not halt in 1927, but continued even after the depression began and lasted through 1930. The years 1931 and 1932 have shown

decreases in membership and assets. The number of members decreased 8.2 percent from 1930 to 1931 and 10.8 percent from 1931 to 1932. The decreases in assets were 4.7 and 7.9 percent, respectively.

TABLE 3.—DEVELOPMENT OF BUILDING AND LOAN ASSOCIATIONS, 1920 TO 1932

Year	Number of associations	Membership	Total assets	Mortgage loans outstanding
1920	8,633	4,962,919	$2,519,914,971	[1]
1921	9,255	5,809,888	2,890,761,621	[1]
1922	10,009	6,864,144	3,342,530,953	[2] $900,000,000
1923	10,744	7,202,880	3,942,939,880	[2] 1,260,000,000
1924	11,844	8,554,352	4,765,937,197	[2] 1,460,000,000
1925	12,403	9,886,997	5,509,176,154	5,085,009,639
1926	12,626	10,665,705	6,334,103,807	5,852,689,591
1927	12,904	11,336,261	7,178,562,451	6,584,818,419
1928	12,666	11,995,905	8,016,034,327	7,336,124,154
1929	12,342	12,111,209	8,695,154,220	7,787,405,383
1930 [3]	11,777	12,350,928	8,828,611,925	[1]
1931 [3]	11,442	11,338,701	8,417,375,605	[1]
1932 [3]	10,997	10,114,792	7,750,491,084	6,394,725,418

[1] No data.
[2] Estimated.
[3] Figures include Hawaii.

Exemption of Cooperative Organizations from Patronage-Dividend Provisions of Codes

ON OCTOBER 24, 1933, the President issued an Executive order exempting all "bona fide and legitimate" cooperative organizations, including farmers' cooperative associations, from provisions in industrial codes designed to prohibit the payment of patronage rebates. This exemption is, however, contingent on the dividends' being paid out of actual earnings.

The text of the order follows:

Defining Effect of Certain Provisions in Codes of Fair Competition Upon Cooperative Organizations

IN A number of codes of fair competition which have heretofore been approved or submitted for approval pursuant to title I of the National Industrial Recovery Act, approved June 16, 1933, there have been included provisions designed to limit or prohibit the payment or allowance of rebates, refunds, or unearned discounts, whether in the form of money or in any other form, and the extension to certain purchasers of services or privileges not extended to all purchasers under similar terms and conditions. Question has arisen as to whether provisions of such tenor do not preclude the payment of patronage dividends to members by bona fide and legitimate cooperative organizations, including farmers' cooperative associations, corporations, or societies, hereinafter designated farmers' cooperatives.

Pursuant to the authority vested in me by title I of the National Industrial Recovery Act, upon due consideration of the facts, and upon the report and recommendation of the Administrator,

I, Franklin D. Roosevelt, President of the United States, do hereby order that no provision in any code of fair competition, agreement, or license which has heretofore been or may hereafter be approved, prescribed, or issued pursuant to title I of the National Industrial Recovery Act, shall be so construed or applied as to prohibit the payment of patronage dividends in accordance with law to any member by any bona fide and legitimate cooperative organization, including any farmers' cooperative, duly organized under the laws of any State, Territory, or the District of Columbia or of the United States, if such patronage dividends are paid out of actual earnings of such cooperative organization and are not paid at the time when such member makes a purchase from such cooperative organization.

Progress Toward a National Cooperative Wholesale Society [1]

SEVERAL unsuccessful attempts have been made toward the establishment of a national cooperative wholesale society for the United States. The latest attempt along this line, National Cooperatives, Inc., was decided upon at a meeting held in Chicago, November 21 and 22, 1932, according to the Cooperative Builder (Superior, Wis.), issue of December 3, 1932. At this meeting were present the representatives of seven district cooperative wholesale societies—Central Cooperative Wholesale (Superior, Wis.), Farmers' Union Central Exchange (St. Paul, Minn.), Farmers' Union State Exchange (Omaha, Nebr.), Illinois Farm Supply Co. (Chicago, Ill.), Indiana Farm Bureau Cooperative Association (Indianapolis, Ind.), Midland Cooperative Oil Association (Minneapolis, Minn.), and Union Oil Co. (Kansas City, Mo.). Representatives were also present from the Cooperative League of the U.S.A., the National Farmers' Union, and the American Farm Bureau.

The conference, called for the purpose of working out a way by which the district wholesales could pool their purchases, decided upon the formation of a national body and adopted articles of incorporation and bylaws therefor.

Incorporation was effected early in 1933, under the laws of Indiana, and of the wholesale group participating in the original meeting all but the Nebraska Farmers' Union State Exchange and the Illinois Farm Supply Co. became charter members.

To be eligible for membership in the new organization the district wholesale must be handling annually at least $100,000 worth of goods in the lines handled by the national organization, must satisfy the latter's board of directors that it is genuinely cooperative, and must subscribe for stock in the national wholesale. It will then be entitled to two representatives on the board of directors and to one vote for every $5,000 worth of business done in the lines of goods carried by the national association. One vote and one representative on the board are also given to each of the national organizations engaged in promoting the cooperative movement.

No paid employee of the new wholesale can be a member of the board of directors.

After setting aside necessary reserves and 3 percent of net earnings for cooperative education purposes, any remaining gains will be rebated to the member wholesales, on individual lines of goods, in proportion to purchases.

National Cooperatives, Inc., has not as yet attempted regular wholesaling. It has been acting as buying agency for the member societies. Its purchases thus far have been mainly of gasoline, kerosene, distillate, lubricating oils, grease, and automobile tires. The member societies together handle each year about 14,000 carloads of gasoline, kerosene, and distillate; 3,500,000 gallons of lubricating oil; 2,500,000 pounds of grease; and half a million dollars' worth of tires. Orders of other commodities will be pooled through the new organization as soon as a sufficient volume is attained.

The new agency also rendered its members signal service through its help in obtaining for the consumers' cooperatives an amendment

[1] Data are from Cooperative Builder (Superior, Wis.), issues of Dec. 3, 1932, Jan. 7, 1933, and Nov. 4, 1933; and Cooperation (New York), April 1933.

to the Farm Credit Act permitting cooperative purchasing organizations to borrow money from the Federal Government. It also participated in the fight, finally successful, to exempt cooperative societies from those provisions of the industrial codes which prohibit the return of patronage dividends or rebates.[2] Among other work to be undertaken will be the fostering of cooperative societies in regions where none now exist.

It is hoped that this organization will eventually develop into a really national wholesale society.

[2] For Executive order on this point see p. 1416 of this issue.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in October 1933

DATA regarding industrial disputes in the United States for October 1933 with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in each year from 1927 to 1932, the number of workers involved and man-days lost for these years and for each of the months, January 1932 to October 1933, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost, as given in the last column of the table, refers to the estimated number of working days lost by workers involved in disputes which were in progress during the month or year specified.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY 1932 TO OCTOBER 1933, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST EACH YEAR, 1927 TO 1932

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total	734	----------	349,434	----------	37,799,394
1928: Total	629	----------	357,145	----------	31,556,947
1929: Total	903	----------	230,463	----------	9,975,213
1930: Total	653	----------	158,114	----------	2,730,368
1931: Total	894	----------	279,299	----------	6,386,183
1932: Total	808	----------	242,826	----------	6,462,973
1932					
January	87	37	12,091	4,993	132,873
February	56	34	33,713	31,103	460,701
March	64	30	33,087	13,937	736,782
April	89	44	19,187	21,513	620,866
May	87	52	44,357	49,777	1,251,455
June	69	46	15,858	24,138	943,338
July	66	40	20,890	33,216	740,785
August	85	38	28,492	27,717	754,423
September	85	33	17,824	7,456	566,045
October	47	23	10,442	2,324	147,059
November	38	21	3,460	1,896	68,154
December	35	12	3,425	997	40,492
1933					
January	67	29	19,616	8,790	240,912
February	63	32	10,909	6,706	109,860
March	91	41	39,913	12,794	445,771
April	72	46	23,077	19,867	535,039
May	133	49	41,652	16,584	603,723
June	131	45	40,903	24,593	504,362
July	219	68	108,350	49,058	1,404,850
August	198	73	145,635	101,041	1,401,532
September [1]	179	110	253,612	160,861	3,528,925
October [1]	95	116	58,203	128,251	3,619,116

[1] Preliminary figures subject to change.

Table 2 gives in detail, by industry, State, and city, the figures making up the total shown in table 1 for the month of October.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF OCTOBER 1933, AND MAN-DAYS LOST, BY INDUSTRY, STATE, AND CITY

Industry, State, and city	Number of disputes		Number of workers involved in disputes		Number of man-days lost in October [1]
	Beginning in October	In effect at end of October	Beginning in October	In effect at end of October	
Auto, carriage, and wagon workers:					
Michigan:					
Bay City		1		75	1,950
Detroit		1		2,000	52,000
Flint		1		1,800	46,800
Pennsylvania: Chester		1		2,000	52,000
Total		4		5,875	152,750
Bakers:					
Massachusetts: Boston	1	1	250	250	2,000
Michigan: Detroit		1		50	1,300
New Jersey: Newark	1	1	6	6	150
New York: New York City and vicinity	1		5,000		5,000
Pennsylvania: Philadelphia					[1] 8,800
Total	3	3	5,256	306	17,250
Broom and brush workers:					
Alabama: Birmingham		1		46	1,196
Building trades:					
District of Columbia	1		150		3,150
Do					[1] 750
New Jersey: Newark	1		49		392
New York: New York City	2	2	72	72	1,392
Pennsylvania:					
Philadelphia		1		200	5,200
Villanova	1		30		60
Vermont: East Barre	1	1	250	250	1,000
Total	6	4	551	522	11,944
Chauffeurs and teamsters:					
Connecticut: New Haven and vicinity	1		1,500		3,000
Massachusetts: Springfield and vicinity	1		275		3,850
New Jersey:					
Atlantic City	1		60		1,200
Cliffside		1		75	1,950
New York:					
New York City	1	1	60	60	1,740
Greater New York	1		2,000		2,000
Do					[1] 4,000
Pennsylvania: Philadelphia	1		1,000		2,000
Total	6	2	4,895	135	19,740
Clothing trades:					
California: Los Angeles	1	1	2,000	2,000	34,000
Connecticut:					
Bethel and Danbury					[1] 12,000
Hartford	1		165		2,475
New Haven					[1] 4,158
Illinois:					
Chicago	2		792		1,816
Quincy	1	1	472	472	6,608
Massachusetts:					
Boston					[1] 21,988
Brockton					[1] 25,000
Methuen	1		400		400
Milford					[1] 2,100
Missouri: St. Louis					[1] 6,000
New Hampshire: Nashua	1	1	657	657	4,599
New Jersey:					
Atlantic City		1		150	3,900
Paterson					[1] 14,534

[1] I.e., in strikes which began prior to October and continued into that month but were not in effect at the end of the month.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF OCTOBER 1933, AND MAN-DAYS LOST, BY INDUSTRY, STATE, AND CITY—Continued

Industry, State, and city	Number of disputes		Number of workers involved in disputes		Number of man-days lost in October
	Beginning in October	In effect at end of October	Beginning in October	In effect at end of October	
Clothing trades—Continued.					
New York:					
Batavia	----	----	----	----	[1]35
Haverstraw	----	1	----	200	5,200
Long Island City	----	2	----	925	24,050
New York City	3	1	4,250	500	17,250
Do	----	3	----	9,500	247,000
Do	----	----	----	----	[1]17,100
Ohio:					
Akron	----	1	----	100	2,600
Cleveland	----	1	----	60	1,560
Toledo	1	----	9	----	9
Pennsylvania:					
Allentown	1	1	100	100	100
Philadelphia	----	1	----	200	5,200
Do	----	----	----	----	[1]1,200
Do	1	1	300	300	4,200
Pittsburgh	----	----	----	----	[1]1,000
Scranton	----	1	----	150	3,900
Tennessee: Nashville	----	----	----	----	[1]3,000
Total	13	17	9,145	15,314	472,982
Coopers:					
Arkansas: Paragould	----	1	----	100	2,600
Electric and gas appliance workers:					
Massachusetts:					
Chicopee Falls	1	----	200	----	1,800
Springfield	----	----	----	----	[1]47,447
New Jersey: Elizabeth	----	----	----	----	[1]9,918
New York: Buffalo	1	1	1,500	1,500	1,500
Total	2	1	1,700	1,500	60,665
Farm labor:					
Arizona: Yuma Valley	----	1	----	1,500	39,000
California:					
Kern, Kings, and Tulare counties and San Joaquin	1	----	2,000	----	32,000
Lodi district	----	----	----	----	[1]7,200
Salinas, Watsonville district	1	1	2,300	2,300	43,700
San Luis Rey valley	----	1	----	400	10,400
Massachusetts: Plymouth and vicinity	----	1	----	300	7,800
Total	2	4	4,300	4,500	140,100
Food workers:					
Ohio: Cleveland	1	1	200	200	200
Pennsylvania: Philadelphia	1	1	60	60	480
Total	2	2	260	260	680
Furniture workers:					
Illinois:					
Chicago	----	2	----	2,045	53,170
Mattoon	1	----	20	----	200
Minnesota: Minneapolis	1	1	500	500	8,500
Rhode Island: Providence	----	1	----	40	1,040
Washington: Seattle	1	1	100	100	100
Total	3	5	620	2,685	63,010
Glass workers:					
Pennsylvania: Greensburg and Mt. Pleasant	1	1	200	200	200
Hotel and restaurant workers:					
Pennsylvania: Philadelphia, and Camden, N.J.	----	----	----	----	[1]3,400
Iron and steel workers:					
New York: Buffalo	2	2	950	950	950
Ohio: Steubenville	----	----	----	----	[1]9,900
West Virginia: Weirton	----	----	----	----	[1]20,800
Total	2	2	950	950	31,650

[1] I.e., in strikes which began prior to October and continued into that month but were not in effect at the end of the month.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF OCTOBER 1933, AND MAN-DAYS LOST, BY INSDUTRY, STATE, AND CITY—Continued

Industry, State, and city	Number of disputes		Number of workers involved in disputes		Number of man-days lost in October
	Beginning in October	In effect at end of October	Beginning in October	In effect at end of October	
Jewelry workers:					
New York: New York City	1		3,050		30,500
Rhode Island: Providence		1		30	780
Total	1	1	3,050	30	31,280
Laundry workers:					
Missouri: St. Louis	1	1	90	90	1,080
Pennsylvania: Reading		1		60	1,560
Total	1	2	90	150	2,640
Leather:					
Connecticut: Bridgeport					[1] 3,584
New York:					
Gloversville and Johnstown	1	1	2,100	2,100	46,200
New York City					[1] 850
Pennsylvania:					
Allentown		1		100	2,600
Easton					[1] 122
Total	1	2	2,100	2,200	53,356
Light, heat, power, and water workers:					
Arizona: Bisbee	1		300		900
Longshoremen, freight handlers:					
California: San Francisco	1		200		1,000
Illinois: Cairo	1		100		1,100
Total	2		300		2,100
Metal trades:					
California:					
Newark	1		80		560
Oakland	1		43		258
Illinois:					
Belleville	1		150		1,350
Do		1		320	8,320
Chicago					[1] 1,309
Do		1		100	2,600
Indiana: Indiana Harbor		1		650	16,900
Missouri: St. Louis		1		100	2,600
New Jersey: Bayonne		1		1,000	22,000
Ohio: Elyria		1		150	3,900
Pennsylvania:					
Erie		1		400	10,400
McKees Rocks	1	1	250	250	250
Monaca	1	1	350	350	350
Philadelphia		1		200	4,400
Sellersville					[1] 2,800
South Greensburg		1		1,088	28,288
Uniontown	1	1	500	500	500
Wisconsin: Racine	1	1	174	174	174
Total	7	13	1,547	5,282	106,959
Miners:					
Alabama:					
Aldrich	1		250		3,000
Dogwood	1	1	140	140	2,660
Labuco	1		200		800
Trafford	1		110		880
Arkansas and Oklahoma		1		4,000	104,000
Colorado: Brodhead, Rugby					[1] 1,200
Illinois: Harrisburg	1		600		1,800
Iowa: Chariton		1		3,000	48,000
Kansas: Pleasanton	1		140		280
New Mexico:					
Dawson	1	1	251	251	6,526
Gallup		1		537	13,962
Ohio:					
Bellaire	1		185		600
Millfield, Murray City	1		600		1,110

[1] I.e., in strikes which began prior to October and continued into that month but were not in effect at the end of the month.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF OCTOBER 1933, AND MAN-DAYS LOST, BY INDUSTRY, STATE, AND CITY—Continued

Industry, State, and city	Number of disputes		Number of workers involved in disputes		Number of man-days lost in October
	Beginning in October	In effect at end of October	Beginning in October	In effect at end of October	
Miners—Continued.					
Pennsylvania:					
Brownsville		1		75	1,950
Fairchance					[1] 1,400
Hazleton	1		750		750
Wilkes Barre	1	1	1,200	1,200	19,200
West Newton		1		1,250	32,500
Southern and western		1		45,000	1,170,000
Western and central					240,000
Tennessee: Whitwell	1	1	400	400	3,200
Virginia: St. Charles	1	1	130	130	520
Washington: Roslyn	1	1	900	900	4,500
Total	14	12	5,858	56,883	1,658,838
Oil and chemical workers:					
Illinois: Cairo	1	1	600	600	12,000
Paper and paper goods workers:					
Louisiana: Marrero	1		550		1,650
Pottery workers:					
Ohio: Tiffin	1	1	150	150	750
Rubber workers:					
Massachusetts: Hudson	1		1,536		9,216
Shipbuilding workers:					
New York:					
Brooklyn	1	1	3,500	3,500	49,000
Mariners Harbor	1	1	1,200	1,200	15,600
Total	2	2	4,700	4,700	64,600
Municipal employees:					
Illinois: Chicago	1	1	100	100	100
Teachers:					
Pennsylvania:					
Jessup Borough	1	1	67	67	938
Old Forge	1	1	117	117	1,404
Total	2	2	184	184	2,342
Textile workers:					
Alabama:					
Jacksonville		1		350	9,100
Piedmont		1		700	15,400
Massachusetts: Fall River					[1] 200
New Hampshire: Manchester	1		60		480
New Jersey:					
Paterson		3		8,158	207,476
Do					[1] 120,000
Waldwick, and Port Jervis, N.Y		1		250	5,500
New York:					
Brooklyn		1		700	18,200
New York City and Brooklyn	1	1	2,500	2,500	20,000
North Carolina:					
Asheboro		1		200	5,200
Do	1	1	200	200	2,000
Pennsylvania:					
Allentown		1		5,000	130,000
Altoona	1		98		1,078
Easton		1		75	1,950
Emaus		1		541	14,066
Hawley		1		300	7,800
Lewiston	1		150		150
Pen Argyl		1		429	11,154
Philadelphia	2	1	350	200	2,900
Do					[1] 3,006
Shillington	1		30		90
Stroudsburg		1		500	13,000
White Mills		1		61	1,342

[1] I.e., in strikes which began prior to October and continued into that month but were not in effect at the end of the month.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF OCTOBER 1933, AND MAN-DAYS LOST, BY INDUSTRY, STATE, AND CITY—Continued

Industry, State, and city	Number of disputes		Number of workers involved in disputes		Number of man-days lost in October
	Beginning in October	In effect at end of October	Beginning in October	In effect at end of October	
Textile workers—Continued.					
Rhode Island:					
Central Falls and Pawtucket	1	1	2,000	2,000	28,000
Hope Valley					[1] 768
Pawtucket	1	1	50	50	1,000
do		1		22	484
Woonsocket, Central Falls, and Pawtucket	1	1	60	60	840
South Carolina: Warrensville	1	1	100	100	400
Tennessee: Harriman	1	1	600	600	2,400
Total	13	24	6,198	22,996	623,984
Other occupations:					
Box makers:					
Indiana: Evansville	1		115		1,150
Washington: Raymond		1		90	2,340
Button workers:					
Massachusetts: Pittsfield		1		115	2,990
New Jersey:					
Hoboken					[1] 70
Newark					[1] 136
Caddies:					
Connecticut: New Haven	1		50		50
Pennsylvania: Media					[1] 500
Caster workers:					
Indiana: Evansville					[1] 200
Cigar-box makers:					
Pennsylvania: Quakertown					[1] 348
Rag sorters:					
New York: New York City		1		90	2,340
Tin-can makers:					
Pennsylvania: Philadelphia	1	1	250	250	6,000
Toy makers:					
Massachusetts: Athol		1		85	2,210
Pennsylvania: Girard	1		1,000		3,000
Window cleaners:					
New York: New York City	1	1	1,500	1,500	39,000
Pennsylvania:					
Philadelphia		1		300	7,800
Pittsburgh	1	1	150	150	2,100
Total	6	8	3,065	2,580	70,234
Grand total	95	116	58,203	128,251	3,619,116

[1] I.e., in strikes which began prior to October and continued into that month but were not in effect at the end of the month.

Occurrence of Disputes

TABLE 3 gives, by industrial groups, the number of strikes beginning in August, September, and October 1933, and the number of workers directly involved.

TABLE 3.—INDUSTRIAL DISPUTES BEGINNING IN AUGUST, SEPTEMBER, AND OCTOBER 1933

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	August	September	October	August	September	October
Auto, carriage, and wagon workers	1	4		100	5,875	
Bakers	7	5	3	1,477	1,270	5,256
Brick and tile workers		1			45	
Broom and brush workers		1			46	
Building-trades workers	13	9	6	872	16,767	551
Car builders	1			50		
Chauffeurs and teamsters		7	6		12,143	4,895
Clothing workers	54	43	13	85,367	80,142	9,145
Coopers	1	2		41	120	
Electric and gas appliance workers	4	2	2	1,160	3,342	1,700
Farm laborers	4	8	2	3,130	4,095	4,300
Fishermen		1			60	
Food workers	3	3	2	1,050	2,200	260
Furniture workers	9	8	3	872	2,363	620
Glass workers		1	1		210	200
Hotel and restaurant workers		1			200	
Iron and steel workers		2	2		2,400	950
Jewelry workers		1	1		30	3,050
Laundry workers	1	2	1	60	68	90
Leather workers	4	6	1	1,207	1,663	2,100
Light, heat, power, and water workers			1			300
Longshoremen	1		2	100		300
Lumber, timber, and mill workers	2			500		
Metal-trades workers	13	19	7	2,735	5,666	1,547
Miners	11	7	14	17,306	84,370	5,856
Oil and chemical workers		1	1		50	600
Paper and paper goods workers	1		1	4,000		550
Pottery workers			1			150
Printing and publishing workers	2			60		
Rubber workers	2	1	1	516	392	1,536
Shipbuilding workers	1		2	158		4,700
Steamboatmen	1			14		
Stoneworkers	1	2		150	47	
Municipal employees	2		1	2,019		100
Teachers		1	2		117	184
Textile workers	42	20	13	12,455	23,449	6,198
Tobacco workers	7	1		8,408	55	
Other occupations	10	20	6	1,828	6,427	3,065
Total	198	179	95	145,635	253,612	58,203

Size and Duration of Disputes

TABLE 4 gives the number of industrial disputes beginning in October 1933, classified by number of workers and by industrial groups.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN OCTOBER 1933, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIAL GROUP

Industrial group	Number of disputes beginning in October 1933, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 and under 10,000 workers
Bakers	1		1			1
Building-trades workers		4	2			
Chauffeurs and teamsters		2	1		3	
Clothing workers	1	1	5	3	3	
Electric and gas appliance workers			1		1	
Farm laborers					2	
Food workers		1	1			
Furniture workers		1	1	1		
Glass workers			1			
Iron and steel workers			1	1		
Jewelry workers					1	
Laundry workers		1				
Leather workers					1	
Light, heat, power, and water workers			1			
Longshoremen, freight handlers			2			
Metal-trades workers		2	4	1		
Miners			9	4	1	
Oil and chemical workers				1		
Paper and paper goods workers				1		
Pottery workers			1			
Rubber workers					1	
Shipbuilding workers					2	
Municipal workers			1			
Teachers		1	1			
Textile workers		5	5	1	2	
Other occupations		1	3		2	
Total	2	19	41	13	19	1

In table 5 are shown the number of industrial disputes ending in October 1933, by industrial groups and classified duration.

TABLE 5.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN OCTOBER 1933, BY INDUSTRIAL GROUP AND CLASSIFIED DURATION

Industrial group	Classified duration of strikes ending in October 1933				
	½ month or less	Over ½ and less than 1 month	1 month and less than 2 months	2 and less than 3 months	5 and less than 6 months
Bakers	3				
Building-trades workers	2	1	1		
Chauffeurs and teamsters	5	1			
Clothing workers	9	3	9	1	
Electric and gas appliance workers	1	1	1		
Farm laborers		1	1		
Furniture workers	1				
Hotel and restaurant workers			1		
Iron and steel workers	1	1			
Jewelry workers	1				
Leather workers		2		2	
Light, heat, power, and water workers	1				
Longshoremen, freight handlers	2				
Metal-trades workers	5				
Miners	9	1			1
Paper and paper-goods workers	1				
Rubber workers	1				
Textile workers	5	1	4	1	
Other occupations	5		3		
Total	52	12	20	4	1

Conciliation Work of the Department of Labor in October 1933

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised her good offices in connection with 134 labor disputes during October 1933. These disputes affected a known total of 162,130 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

There were 8 cases involving the law on the prevailing rate of wages. In these cases it is not always possible to show the number involved, due to lack of information as to total number required before completion of construction.

CASES HANDLED BY CONCILIATION SERVICE DURING MONTH OF OCTOBER 1933

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
James Lee & Sons Woolen Mills, Bridgeport, Pa.	Controversy	Textile workers	Violation of agreement	Pending	Oct. 1		1,400	
Government buildings, Washington, D.C.	Strike	Carpenters and iron workers.	Jurisdiction of installation of radiator covers.	Adjusted. Disputed work suspended temporarily; operations resumed.	Sept. 5	Oct. 13	75	925
Good Will Shoe Co., Holliston, Mass.	do	Shoe workers	Working conditions	Pending	Oct. 2		150	
Window cleaners, Philadelphia, Pa.	do	Window cleaners	do	do	Sept. 30		(1)	
Strike situation, Manville, R.I.	do	Industrial workers	do	do	Oct. 2		(1)	
Canton Enamelling & Stamping Co., Canton, Ohio.	do	Enamelers and stampers.	Discharges and working conditions.	Adjusted. Reinstated discharged workers; union recognition and future increase in wages granted.	Sept. 19	Oct. 27	450	463
Automatic Machine Department, Baltimore, Md.	Controversy	Glass workers	Wages unsatisfactory	Adjusted. Satisfactory settlement	Oct. 3	Oct. 14	65	
M. J. Weberling Bakery, Peru, Ill.	do	Bakery workers	Asked increase and collective bargaining.	Adjusted. Agreement concluded allowing collective bargaining.	Sept. 18	Sept. 23	17	
Bendix Aviation Corporation, South Bend, Ind.	Threatened strike.	Automotive crafts	Discharges for union affiliation	Adjusted. Agreed on points in dispute.	Oct. 4	Oct. 8	1,138	310
Berkshire Button Co., Pittsfield, Mass.	Strike	Button makers	Working conditions	Adjusted. Wages increased; conditions satisfactory.	do	Oct. 18	50	
Culinary workers, San Francisco, Calif.	do	Culinary workers	Wages and working conditions	Adjusted	do		250	
Carwood Manufacturing Co., Winder, Ga.	do	Pants and overall makers.	Discharges of union members	Adjusted. Returned; election held resulted in majority for formation of union.	Oct. 16	Oct. 22	192	800
Patton Clay Manufacturing Co., Patton, Pa.	do	Brick and clay workers.	Wages, hours, union recognition, and reinstatement of those discharged.	Adjusted. Increased 12 cents per hour; 8-hour day. Discharged workers reinstated.	Sept. 28	Oct. 12	196	129
Bakery-wagon drivers, Philadelphia, Pa.	do	Drivers	Wages, union recognition, and working conditions.	Pending	Sept. 26		1,100	475
American Can Co., Philadelphia, Pa.	do	Workers	Wages and union recognition	do	Oct. 4		300	
Central Paper Co., Muskegon, Mich.	Threatened strike.	Paper workers	Discharges for union affiliation	do	Oct. 5		300	
M. T. Brown, Inc., Coldwater, Mich.	Strike	Shoe workers	Deduction of pay for alleged poor workmanship.	do	Oct. 6		24	91
			Working conditions	Adjusted. Concluded agreement	do	Oct. 11	203	

Miners, Pineville, Ky.	do	Miners	Working conditions	Adjusted. Concluded agreement with United Mine Workers of America.	do	Oct. 11	203	
Parisien Bakery, San Francisco, Calif.	Controversy	Bakery workers	do	Adjusted. Wages increased to $35 per week; union recognition.	do	Oct. 18	6	9
Bobro Bros. Cigar Co., Philadelphia, Pa.	Strike	Cigarmakers		Adjusted. Wage agreement concluded; hand-made cigars $8.25 per thousand.	Sept. 29	Oct. 5	75	75
Todd Dry Dock & Shipbuilding Co., New York City.	do	Dry-dock workers	do	Pending	Oct. 6		500	
Aircraft workers, Hartford, Conn.	Threatened strike.	Aircraft workers	Wage rate per hour	Adjusted. Allowed increase of 12½ percent.	Oct. 3	Oct. 25	600	
Sash and door workers, Muscatine, Iowa.	Controversy	Sash and door workers.	Working conditions	Pending	Oct. 2		(1)	
Warren Chandelier Co., Chicago, Ill.	do	Metal polishers	Employees not paid for five weeks.	Adjusted. Employees paid in full.	Sept. 11	Oct. 18	50	
Philadelphia Pile Fabric Co., Philadelphia, Pa.	do	Textile workers	Working conditions; discrimination alleged.	Pending	Sept. 29		(1)	
Pratt & Letchworth Co., Buffalo, N.Y.	Strike	Steel and metal workers.	Working conditions and union recognition.	do	Oct. 4		300	
Myles Manufacturing Co., Pennsboro, W.Va.	do	Employees	Working conditions	do	Oct. 5		(1)	
Montevallo Coal Mining Co., Aldrich, Ala.	do	Miners	Wages and working conditions	Adjusted. Satisfactory settlement	do	Oct. 12	220	
Karsson & Rice Cloak Co., Kansas City, Mo.	do	Ladies' garment makers.	do	Adjusted. Agreement concluded. All returned without discrimination.	Aug. 15	Oct. 7	65	
Rexart Casket Co., Kansas City, Mo.	do	Casket workers	Union recognition and working conditions.	Adjusted. Returned pending adoption of permanent code.	Oct. 1	Oct. 6	50	
Pen Argyl Silk Co., Pen Argyl, Pa.	do	Silk throwers	do	Pending	Sept. 25		400	
Campbell Metal Window Corporation, Baltimore, Md.	Threatened strike.	Metal workers	Interpretation of rates under blanket code.	Adjusted. Issues held in abeyance until code is adopted.	Oct. 2	Oct. 13	220	
Engineers and firemen, Salem, Beverly, Danvers, and Peabody, Mass.	do	Engineers and firemen.	Wages, hours, and working conditions.	Pending	Sept. 23		183	15,160
United Cigar Stores, Chicago, Ill.	do	Clerks	Dismissals of retail clerks	do	Oct. 6		(1)	
Quaker City Leather Co., Philadelphia, Pa.	Strike	Leather workers	Working conditions	Adjusted. Returned; National Labor Board to fix final terms.	Oct. 10	Nov. 7	300	
Upholstery workers, Wilkes-Barre, Pa.	do	Upholsterers	Asked wage increase and union contract.	Adjusted. Increase allowed; agreement concluded.	Sept. 14	Oct. 11	106	
Broom manufacturers, Chicago, Ill.	do	Broom makers	Asked restoration of 30-percent wage cuts since 1931.	Pending	Sept. 26		100	
Southern Advance Bag & Paper Co., Hodge, La.	Controversy	Bag and paper makers.	Discharges	Pending. Part reemployed	Oct. 10		15	1,000
Celotex Co., Morrero, La.	do	Pulp and paper workers.	Working conditions	Pending	do		(1)	
Brookside Colliery, Tower City, Pa.	Strike	Miners	Discharges and union dues	Adjusted. Returned; negotiations continued.	Sept. 21	Oct. 14	1,000	
Mill and timber workers, McCloud, Calif.	Controversy	Mill workers	Discharges for union affiliation	Pending	Sept. 1		(1)	

[1] Not yet reported.

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CASES HANDLED BY CONCILIATION SERVICE DURING MONTH OF OCTOBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
LaSalle Handbag Co., New Brunswick, N.J.	Strike	Handbag workers	Wages, union recognition, and other conditions.	Pending	Oct. 9		50	
Taxicab drivers, Louisville, Ky	Threatened strike.	Taxicab drivers	Working conditions	do	Oct. 6		(1)	
Garment workers, Los Angeles, Calif.	do	Garment workers	Union recognition	Adjusted. Agreed on arbitration	Oct. 8	Oct. 11	10,000	
Upholsterers, Los Angeles, Calif	do	Upholsterers	Asked increase and union recognition.	Adjusted. Allowed union recognition; strike called off.	do	Oct. 23	850	3,000
Schultz Illinois Paper Co., Warsaw, Ind.	Strike	Paper workers	Discharges; union recognition	Pending	Oct. 1	Oct. 22	76	67
Firestone Rubber Shoe Co., Hudson, Mass.	do	Rubber-shoe workers.	Working conditions	Adjusted. Returned; election to be conducted by commissioner.	Oct. 10	Oct. 11	1,200	
Cotton pickers, Bakersfield, Calif	do	Cotton pickers	Working conditions; violence reported.	Adjusted. Increase from 60 to 75 cents per hundred; arbitration agreement.	do	Oct. 30	12,000	
Link Belt Co., Indianapolis, Ind	do	Belt makers	Union recognition refused	Pending	Oct. 12		(1)	
Rose Silk Mills, Philadelphia, Pa	do	Yarn makers	Asked increase of 20 percent and reinstatement of 19 workers discharged for union activity.	Adjusted. Workers reinstated; union recognition, and redistribution of work.	Sept. 6	Oct. 27	10	290
Cadillac, Hamlet, Solsberg, and Perfect Textile Mills, Pawtucket, R.I.	do	Textile workers	Working conditions	Pending	Oct. 12		(1)	
Chicago Shipbuilding Co., Chicago, Ill.	do	Ship workers	Violation of shipbuilding code; wages and working conditions.	Adjusted. Agreement concluded	do	Oct. 16	150	
Northern Indiana Public Service Co., Michigan City, Ind.	Threatened strike.	Employees	Discharges	Pending	do		(1)	
Chester Tube Co., South Chester, Pa.	Lockout	Workers	Working conditions	do	Sept. 28		(1)	
Empress Hat Co., Kansas City, Mo.	Threatened strike.	Millinery workers	Violations of agreement	Unable to adjust	Oct. 13	Oct. 21	43	
Monarch Silk Co., Philadelphia, Pa.	Strike	Silk throwers	Wages and union recognition	Pending	Sept. 25		130	
Cheltenham Knitting Mills, Philadelphia, Pa.	do	Knitters	Discrimination for union activity	Adjusted. Increase allowed. Arbitration for future grievances.	Sept. 22	Oct. 22	300	
Jeffrey Dewitt Insulator Co., Kenova, W.Va.	do	Brick and clay workers.	Discharges for union affiliation	Adjusted. Workers reinstated	Oct. 13	Oct. 17	71	15
Reiss Premier Shop, Union City, N.J.	Lockout	Workers	Organization dispute	Pending	do		(1)	
Showers Bros. Furniture Co., Bloomington, Ind.	Threatened strike.	Furniture workers	do	Adjusted. Strike averted. Conferences held to fix terms.	Oct. 10	Oct. 25	1,400	100

Nurr Co., Bloomington, Ind	do	Mirror workers	Working agreement	Adjusted. Satisfactory settlement.	do	Oct. 23	200	15
Glabman Bros., Chicago, Ill	Strike	Upholsterers	do	Adjusted. Returned to work; union wages to be paid.	Oct. 14	Oct. 16	50	
Vienna Sausage Co., Chicago, Ill	do	Sausage makers	Collective bargaining and other conditions.	Adjusted. Working agreement concluded fixing wages and other conditions.	Oct. 12	Oct. 17	60	
U.S. Marine Hospital, Chicago, Ill	Controversy	Plasterers	Nonpayment of wages	Adjusted. All wages paid	June 15	Oct. 16	4	
Fairsex Shoe Co., Lynn, Mass	Strike	Shoe workers	Payment of wages	Adjusted. Resumption of work October 6.	Sept. 29	Oct. 5	100	
Matson Navigation Co., San Francisco, Calif.	do	Longshoremen	Organization and working conditions.	Adjusted. Returned to work; arbitration in progress.	Oct. 6	Oct. 13	500	4,500
E. R. Haffelfinger & Co., Inc., Hanover, Pa.	do	Color mixers	Wages, working conditions, and union recognition.	Adjusted. Color mixers $1.10 per hour; others, graduated scale of wages.	Sept. 28	Oct. 15	41	
Embroidery workers, Cleveland, Ohio.	do	Embroidery workers.	Violations of working code	Unable to adjust. Employers refused to continue conference.	Oct. 16	Oct. 25	225	
Ohio Electric Sign Association, Cleveland, Ohio.	Threatened strike.	Electric-sign workers.	Working conditions	Pending	Oct. 14		200	3
Pierson Manufacturing Co., Quincy, Ill.	Strike	Garment workers	Union recognition; wages	do	Oct. 16		455	
Furniture companies, Minneapolis, Minn.	do	Upholsterers	Wages; closed-shop agreement	do	Oct. 11		600	
Porter Coal Co., Porter, Ala	Lockout	Miners	Union recognition, checkweighman, and dues.	Adjusted. Agreed to have a committee settle all questions.	Oct. 5	Oct. 16	250	
Praco Fuel Co., Dora, Ala	Threatened strike.	do	Working agreement	Adjusted. Recognition of union committee and checkweighman.	do	do	135	
Silk Fabric Corporation, Reynoldsville, Pa.	Strike	Silk workers	Back wages and working conditions.	Adjusted. Back wages paid; conditions satisfactory.	Oct. 14	Oct. 14	125	5
Girard Model Co., Erie, Pa	do	Iron-toy makers	Wages	Adjusted. Increase 5 cents per hour returned without discrimination.	do	Oct. 17	1,000	200
Delta Finishing Co., Philadelphia, Pa.	do	Cotton dyers	Wages and recognition	Adjusted. Increase of 16 percent; union recognition.	Sept. 1	Oct. 18	110	
McPherson Foster Box Co., Evansville, Ind.	do	Box makers	Working conditions	Adjusted. Satisfactory settlement.	Oct. 1	Oct. 13	125	
Toy makers, Washington, Ind	do	Toy makers	Discharges; working conditions	do	Sept. 16	Oct. 11	170	
Chrysler Corporation, Detroit, Mich.	Threatened strike.	Automobile workers.	Discrimination	Pending	Oct. 2		6,000	45,000
Ely Manufacturing Co., Girard, Pa.	Strike	Toy makers	Wages	Adjusted. Returned without discrimination; 36 cents per hour on piecework; 35 cents per hour on other work.	Oct. 18	Oct. 18	50	
Schultz Baking Co., Kansas City, Mo.	do	Inside bakery workers.	Discharges for union activities	Unable to adjust	Oct. 17	Oct. 21	16	200
Northern Indiana Railroad, South Bend, Ind.	Threatened strike.	Street-railway workers.	do	Pending	do		60	240
Ann Arbor Press, Ann Arbor, Mich.	Lockout	Typesetters	Hours, conditions and alleged violation of agreement.	do	Oct. 14		18	60
Cloak manufacturers, Los Angeles, Calif.	Strike	Garment workers	Union recognition	Adjusted	Oct. 19	Oct. 23	2,000	

[1] Not yet reported.

CASES HANDLED BY CONCILIATION SERVICE DURING MONTH OF OCTOBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1933	1933		
England Walton Leather Co., Ashland, Ky.	Controversy	Leather workers	Closed-shop agreement	Unclassified. Discrimination denied. Referred to N.R.A.	Oct. 19	Oct. 30	(1)	
United Press, New York City	do	Telegraphers	Terms of new contract	Adjusted. Agreement for 13 months concluded.	Oct. 17	Oct. 27	100	
White Gladstone Co., Chicago, Ill	Strike	Leather workers	Collective bargaining and other conditions.	Adjusted. Returned. Satisfactory settlement.	Oct. 1	Oct. 17	7	
J. K. Mosser Tannery Co., Noxen, Pa.	Lockout	Tanners	Union dispute	Adjusted. Returned without discrimination.	Oct. 14	do	265	6
New England Woodenware Co., Winchendon, Mass.	Strike	Woodenware workers.	Wages	Pending	Oct. 19		150	
Sibley, Enterprise, and Globe Mills, Augusta, Ga.	do	Textile workers	Stretch-out system, discrimination against union members, and other violations of code.	Unclassified. Referred to National Textile Industrial Relations Board.	Oct. 22	Nov. 1	10,000	15,000
Cotton mills, Horse Creek, Valley, S.C.	do	do	do	Pending	do		(1)	
Aetna Rubber Co., Ashtabula, Ohio.	Strike	Rubber workers	Violation of agreement	Adjusted. Union recognition and collective bargaining.	Oct. 23	Oct. 31	230	20
Paragon Worsted Co., Providence, R.I.	Threatened strike.	Textile workers	Asked wage increase	Adjusted. Small adjustment in wages.	Sept. 30	Oct. 30	250	
Saybrook Manufacturing Co., Hope Valley, R.I.	Strike	Workers	(1)	Pending	Oct. 15		(1)	
Clover Worsted Mills, Woonsocket, R.I.	do	Textile workers	Discharges	Adjusted. Workers reinstated	do	Oct. 30	350	
Bookman Cleaners & Dyers, Inc., Toledo, Ohio.	do	Cleaners and dyers	Discharges for union activity	Adjusted. Reinstated; conditions satisfactory.	Oct. 6	Oct. 29	8	
Electricians, Spokane, Wash	do	Electricians	Wages and working conditions	Adjusted. Agreed on arbitration	Oct. 21	Oct. 26	23	
Granite workers, Bedford, Ind	Controversy	Planermen, cutters, and carvers.	Alleged coercion to join company union.	Pending	Oct. 17		(1)	
Harriman Hosiery Mills, Harriman, Tenn.	Strike	Hosiery workers	Reinstatement not conceded as per former agreement.	Unclassified. Referred to N.R.A.	Oct. 19	Oct. 31	450	150
Cleaners and dyers, Trenton, N.J.	do	Cleaners and dyers	Discharges for union affiliation; wages.	Adjusted. Increase 25 percent and union recognition.	Oct. 10	Nov. 1	150	
Stokes Rubber Co., Trenton, N.J.	Threatened strike.	Rubber workers	Violation of code; discharges	Pending	Oct. 24		550	
Cleveland Provision Co., Cleveland, Ohio.	do	Drivers	Working conditions	do	do		(1)	
Kurz Kasch Co., Dayton, Ohio	Strike	Bakelite molders	Discharges; working conditions	Adjusted. All reinstated. Wages to be arbitrated by National Labor Board.	Oct. 20	Oct. 26	115	305

Durand Shoe Co., Richmond, Maine.	---do---	Shoe workers	Discharge of 14 men	Adjusted. Returned; conditions satisfactory.	Oct. 24	Nov. 7	70	125
Lyons Transportation Co., Erie, Buffalo, and Cleveland.	---do---	Drivers	Union disputes	Adjusted. Reinstated all strikers; tentative agreement.	Oct. 18	Oct. 27	20	30
LaSalle Hat Co., Philadelphia, Pa.	---do---	Millinery workers	Asked union recognition	Pending	Sept. 20		(1)	-------
Lathrop-Paulson Co., Chicago, Ill.	---do---	Metal polishers	Working conditions	Unclassified. Referred to Regional Board.	Oct. 23	Nov. 8	35	-------
Rheuping Leather Co., Fond du Lac, Wis.	Threatened strike.	Leather workers	Discharges for union affiliation	Adjusted. Company denied discharge of workers.	Oct. 27	Nov. 1	740	-------
Oxford Pottery Co., Cambridge, Ohio.	Strike	Pottery workers	Working conditions	Adjusted. Reinstated 4 workers at 40 cents per hour.	Oct. 26	Oct. 30	53	-------
Brown-Forman Distillery Co., Louisville, Ky.	Threatened strike.	Electrical workers	Asked $1 per hour; receiving 74 cents.	Adjusted. Contractor paid $1 per hour.	Oct. 23	Oct. 24	9	75
Street railways, Oklahoma City, Okla.	Controversy	Street-railway workers.	Wages and working conditions	Adjusted. Working conditions settled; wages to be fixed by National Labor Board.	Oct. 25	Oct. 28	(1)	-------
National Aniline & Chemical Co., Buffalo, N.Y.	Threatened strike.	Workers	Discharges and refusal to recognize union.	Pending	Oct. 12		600	-------
Laundry drivers, St. Louis, Mo.	Strike	Drivers	Organization and closed-shop agreement.	Unclassified. Regional mediation board handling dispute.	Oct. 28	Oct. 31	300	4,500
American Radiator Co., Bayonne, N.J.	---do---	Workers	Asked wage increase of 25 percent and union recognition.	Pending	---do---		1,100	-------
Underwood Typewriter Co., Hartford, Conn.	Threatened strike.	Metal polishers	Working conditions	---do---	---do---		(1)	-------
Teamsters and chauffeurs, Paterson, N.J.	Strike	Drivers	Wages and working conditions	Adjusted. Allowed increase and union recognition.	Oct. 20	Oct. 23	460	-------
Motor Gauge Equipment Co., Lacrosse, Wis.	Controversy	Equipment makers	Discharges	Unclassified. Company denied charges, alleging lack of business.	Oct. 30	Nov. 6	500	-------
Montevallo Coal Co., Aldrich, Ala.	Threatened strike.	Miners	Working conditions; alleged company not complying with recent agreement.	Adjusted. (Terms not yet received).	---do---		250	-------
Northwest Packing Co., Chicago, Ill.	Strike	Sausage makers	Discharges	Adjusted. Reinstated 2; others if business warrants.	---do---	Nov. 3	40	-------
Riverside Mills, Augusta, Ga.	---do---	Textile workers	Conditions caused by reported violence by other mill strikers.	Adjusted. Returned; no discrimination.	Oct. 25	Oct. 27	700	1,500
Warwick Mills, Warwick, R.I.	Controversy	Loom fixers	Asked wage increase	Pending	Oct. 31		(1)	-------
Milk drivers, Buffalo, N.Y.	Threatened strike.	Drivers	Working conditions	---do---	Oct. 28		(1)	-------
Holland Shoe Co., Holland, Mich.	Strike	Shoe workers	Wages and working conditions	Adjusted. Michigan labor commissioner suggested all return to work pending further negotiation.	Oct. 31	Nov. 7	150	20
Black Diamond Mine, Mossboro, Ala.	---do---	Miners	Working conditions	Adjusted. Conditions satisfactory	Oct. 27	Nov. 2	73	-------
Monarch Shoe Co., Worcester, Mass.	Controversy	Shoe workers	Discharges	Adjusted. Agreed to arbitrate differences.	Oct. 15	Nov. 4	200	-------
Standard Bag Co., Augusta, Ga.	Strike	Bag workers	---do---	Adjusted. All reinstated without discrimination.	Oct. 25	Oct. 27	80	120

[1] Not yet reported.

CASES HANDLED BY CONCILIATION SERVICE DURING MONTH OF OCTOBER 1933—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Disputes involving the prevailing-wage law								
Post offices:					1933	1933		
Manchester, N.H.	Threatened strike.	Plumbers and steamfitters.	Working conditions and prevailing-wage scale.	Adjusted. Agreement concluded and work continued.	Oct. 1	Oct. 20	2	19
Atlanta, Ga.	Controversy	Carpenters	Prevailing-wage scale	do	do	Oct. 14	30	-------
Somerville, N.J.	do	Mechanics and laborers.	do	do	May 11	Oct. 18	70	-------
New Orleans, La.	do	Plumbers and steamfitters.	do	Pending	Oct. 30	----------	(1)	-------
Court House, New York City	do	do	do	do	Oct. 1	----------	(1)	-------
Veterans' Administration Hospital, Marion, Ind.	do	Carpenters	do	Adjusted. Scale of 75 cents per hour posted and paid.	Oct. 3	Oct. 22	7	25
Extensible Building, Washington, D.C.	Strike	do	Refusal to set wood trim manufactured under nonunion conditions.	Adjusted. Satisfactory settlement.	Oct. 24	Oct. 31	55	-------
Building, Fort Miley, Calif.	Controversy	Bricklayers and rodmen.	Prevailing wage and wage for overtime work.	Adjusted. Bricklayers $1 per day; rodmen allowed double time for overtime and holidays.	Oct. 1	Oct. 23	28	-------
Total							67,103	95,027

[1] Not yet reported.

LABOR AWARDS AND DECISIONS

Wage Increase Awarded to Boston Elevated Railway Employees

THE trustees of the Boston Elevated Railway Co. and the Amalgamated Association of Street and Electric Railway Employees and Division No. 589, agreed on July 5, 1933, to submit certain changes in their existing contract of employment to a board of arbitration. The board was composed of David A. Marshall, chairman, James H. Vahey, representing the association, and Bentley W. Warren, representing the trustees of the company.

The board awarded a wage rate of 71 cents an hour for the two-man car, an increase of 2½ cents an hour over the previous rate, and denied the request of the trustees that the annual vacation period with pay be reduced from 2 weeks to 1 week.

The trustees had requested a wage reduction of 15 percent, while the association had asked for an increase of 11½ cents an hour. The trustees had requested that the vacation period of 2 weeks with pay provided for in the present agreement be reduced to 1 week. The association had asked that there be no change in the vacation period.

Of the 8 additional changes requested by the trustees, 3 were disposed of during the hearings, and 1 of the 2 changes requested by the association was likewise disposed of.

On behalf of the trustees the board was urged, in arriving at what should constitute the basic rate, to consider the following: The radical drop in the cost of living; that budgetary studies must be weighed carefully; that the financial condition of the company is a material factor; that actual earnings of carmen are high; that the wages paid by the company are much higher than in the street-railway industry generally; that other occupational earnings, the earnings of Government employees, and the earnings of other employees of the company have been reduced much more than the earnings of the members of the carmen's union; and that the small labor turn-over is proof of the attractiveness of work on the Elevated.

On behalf of the association the board was urged to consider the following among other factors: That particular study be directed to the Public Control Act and to the specific payments which the trustees must meet under said act; that the men are entitled to a fair wage irrespective of the financial condition of the company or its earnings; and that the basic rate is the only rate which the board should consider.

The Public Control Act was passed in 1918 to provide for the public operation of the Boston Elevated Railway Co. It established a board of trustees for the company, consisting of five members appointed by the governor with the advice and consent of the council. These trustees were charged, not only with the management and oper-

ation of the railway system of the Boston Elevated Railway Co., but also with the payment of operating expenses, taxes, dividends, rentals for subway, tunnel, and Rapid Transit Lines, and interest on bonds and notes.

In 1929, the legislature created the Metropolitan Transit District consisting of the following cities and towns: Arlington, Belmont, Boston, Brookline, Cambridge, Chelsea, Everett, Malden, Medford, Milton, Newton, Revere, Somerville, and Watertown. In the same act it provided that the voters in the district should express their desires as to what should be done "with the future of the Boston Elevated Railway Co.", and that at the biennial State election in 1930 they should vote upon plans for determining the future ownership, management, and operation of the lines.

Three plans were submitted to the voters in 1930, as follows:

Plan no. 1. Return to the Boston Elevated Railway Co. of the management and operation of its railway system by terminating the public management and operation thereof.

Plan no. 2. Continuation of the public management and operation of the Boston Elevated Railway Co. in accordance with such terms and conditions as may be agreed to by stockholders of said company.

Plan no. 3. Purchase by the Metropolitan Transit District, which comprises the cities and towns above enumerated, of the assets, property, and franchise of the Boston Elevated Railway Co., and same thereafter to be owned, managed, and operated by said district.

As a result of the vote, plan no. 2 was adopted. In 1931, the legislature extended the public management and operation of the company to July 1, 1959, and made it incumbent upon the trustees to pay, not only the operating expenses, but also dividends upon the common stock of the railway company, at 5 percent per annum upon the par value of such stock, during the continuance of such public management and operation, the payment of dividends to be included in the cost of service.

The act passed in 1918 provided that if on the last day of any December or June after 1919 the amount remaining in the reserve fund of the company was insufficient to meet the deficiencies in any year, the trustees were to notify the treasurer and receiver general of the Commonwealth as to the amount of the deficiency and the amount of money in the reserve fund applicable to the deficiency, and the Commonwealth was thereupon to pay over to the trustees the amount of net loss. This net loss paid by the Commonwealth was to be retrieved by taxing the cities and towns served by the company in the manner provided by law.

The award, rendered September 14, 1933, and the opinion of the board, in part, is as follows:

Street-railway service, under modern conditions of living, is a public necessity in every large city in the country insofar as it is essential to the health, to the comfort, and to the prosperity of the people in general. In a city so situated as Boston, surrounded by multifold suburbs, such service is as essential to our health, comfort, and prosperity as is our water supply, sewage removal, fire and police protection, and other public services.

In consideration of the public-service value of the street railway it follows that if car riders do not utilize this public service to such an extent that the sum total of their fares is sufficient in any 1 year to meet the operating expenses of the company, then it is only fair that the deficiency of operation occasioned by the lack of utilization shall be made up by direct taxation as is now provided under our statutes. * * *

The primary social obligation of the trustees is to provide a means of transportation that shall be effective and economical to those who wish to take

advantage of that service. The operating losses of the Boston Elevated Railway Co., though of paramount importance, must be viewed not only from the point of view of their economic value, but also from their social aspects. Finally, it may be stated that this company is obligated to provide a type of service to those people who use the system so that they may be able to reach points of destination where they may contract the businesses of livelihood. Irrespective of the fact that many do not use directly the Boston Elevated Railway system for their own personal transportation, nevertheless, they benefit indirectly by this service insofar as many of their associates in business are transported thereby. * * *

We feel, therefore, that the method for meeting deficiencies is, as provided by the legislature, just and fair, and in view of the social and economic value of the service to the community at large, the operating deficiencies should not affect the basic rate of wage paid to its employees. Under no consideration should an employee of the railway be compelled to contribute to this deficiency unless his rate of wage is inequitable from the point of view of social values as well as from the point of view of reasonable living conditions.

In view of the serious annual operating deficiencies of the road, we beg to suggest a reasonable method to provide against them; namely, that the trustees be relieved from payment of rentals for subway, tunnels, and rapid transit lines. * * * Insofar as the subways and tunnels operate for the benefit of all members of the community and even for those, not members of the community, who wish to take advantage of this service, it seems just that the Boston Elevated Railway Co. might well be relieved from further payment of rentals for subway, tunnels, and rapid transit lines. If the trustees should succeed in bringing about the passage of a legislative enactment, the consequence of which would relieve them from payment of the above rentals, they would then be in a decidedly better condition to operate economically. When we consider that from the years 1918 to 1932 the payments for rentals of subway, tunnels, and rapid transit lines amounted to over 13 millions of dollars, it would appear that if this burden could be diminished by, let us say 50 percent, the railway would not have shown a deficit even in the last 3 years. * * *

Chief among the various arguments advanced by the trustees of this road for the reduction of wages has been the deplorable operating losses of the road. On the other hand, the association submits the counter argument that such losses should have no influence on the determination of a fair wage. The crux of this problem lies mainly in the fact that the legislature in its wisdom requires the trustees to pay dividends to its stockholders, irrespective of whether or not the road earns those dividends. Furthermore, these dividends are part and parcel of the cost of operation. Now, in view of the fact that the railway is in substance a public utility, the legislature has not erred in making it mandatory that the stockholders be paid annual dividends. This procedure on the part of the legislature is equitable, for if the holders of bonds in other public enterprises receive annual dividends therefrom, the stockholders in this railway are rightly entitled to the same treatment. Were it true that these dividends fluctuated according to the financial condition and earnings of the road, and were it further true that the stockholders lost or profited in direct relation thereto, then it would be imperative for us to consider their argument for a reduction of wages. But this is not true. We conclude, therefore, that this argument on behalf of the trustees should not influence us in our determination of what constitutes a fair basic wage.

Worthy of consideration are the arguments made on behalf of the trustees relative to the radical decline in the cost of living and to the Executive order of July 3, 1933, issued by the President of the United States, to the effect that the 15 percent retrenchment of the wages of all Federal employees be continued until December 31, 1933. On the other hand, we must consider on behalf of the association that since the passage of the National Industrial Recovery Act, prices of commodities have increased and it is likely that they will continue to do so. With regard to the termination of the Executive order, little can be said that would not enter into the problematical. * * *

If all factors were controlled, we might subscribe to the argument that the small labor turn-over is evidence of the attractiveness of the work of the Elevated employees. If this be true, then we may conclude that the argument is equally advantageous for both parties. It has been agreed that the youngest man from point of service has been in the employ of the road for at least a period of 15 years. The advantage to the men lies mainly in the fact of steady employment; the advantage to the trustees resides in the fact that the railway is manned by men of steady habits who value their positions and who become increasingly efficient as time elapses. The consuming public profits

from both advantages. As evidence thereof, it is observable that from the years 1926 to 1932 accidents occasioned by collision were reduced from 10,246 to 4,046 and industrial accidents were reduced from 1,465 to 698.

In consideration of the statistical evidence proffered during the hearing, showing comparative wages of other railway lines, indexes of the cost of living based on numerous budgets, etc., the board said:

* * * We must conclude that during the past 6 or 7 years the dollar has appreciated in value, and the cost of living has declined. It would appear to be a strong argument in favor of the trustees that the wages of the carmen should be reduced in ratio to the decline in the cost of living. Yet this is only true when all factors of human behavior are held constant. If we select the cost of living as the sole criterion in this matter, we might acquiesce. But, unfortunately, we do not accept the cost of living as the sole criterion in the determination of what constitutes a fair wage.

With regard to what constitutes a fair wage, we feel in a certain sense justified in being guided by the awards of prior arbitrations. In the arbitration of 1925, presided over by Judge Nelson Brown in the capacity of the impartial chairman, the award was set at 72½ cents. Since the last arbitration the basic wage rate was settled by agreement. Since there were amicable agreements during the latter period, it is inferable that all the various elements constituting a fair wage were seriously considered. On July 1, 1926, the fair rate of wage was set at 72½ cents; during the period 1927 to 1932 the rate of wage was 75 cents; and in the last period from July 1, 1932, to July 1, 1933, was 68½ cents.

* * * To decide what is just and equitable for the present as well as for the immediate future is a task of first magnitude. Since the agreement between the association and the Boston Elevated Railway Co. was first signed, no board of arbitration has been virtually confronted with the demand to play the role of the prophet of the moment and of the future. Yet, whatever the future may hold, we can be guided only by present trends, and we are, therefore, forced into the uncomfortable position of casting the die as to their possibilities. On this basis, we believe, after due consideration that these carmen, in order to maintain a normal American standard of living, should receive a basic wage rate of 72½ cents per hour. However, for reasons which will be forthwith introduced, we set the basic rate of wage for the 2-man car at 71 cents.

We have not been requested to deal directly with differentials, only on the proviso that we should award a 15 percent reduction of wages. Naturally, if the reduction be awarded, the differentials would be correspondingly altered. However, as the case has been presented to us, we do not feel obligated to change the existing differentials.

However, we have been urged to pass judgment relative to vacations. The company, on one hand, desires to limit the period of vacation to 1 week with pay, instead of 2 weeks; the association, on the other hand, urges that a period of 2 weeks' vacation with pay be granted to all employees members of the association. This request, on behalf of the association is denied. It is beyond the question of doubt that such a policy will be detrimental to some individuals, but we are concerned here primarily with a collective body of men and women and, unfortunate as it may be in individual cases, we adopt this policy.

In a previous paragraph we decided upon 72½ cents an hour as a fair basic wage but we set it at 71 cents. By virtue of the request of the association, we have chosen to deduct 1½ cents per hour from the basic wage, the sum total of which would be equivalent, annually, to approximately one weeks' vacation with pay.

In short, we are decidedly of the opinion that the financial condition of the railway should not affect the basic rate of wage. Yet, when we come to grips with such a matter as vacations, an entirely different situation faces us. Vacations are, however you may put it, a comfort, and in this light we cannot overlook the request of the company, especially so, when we consider the fact that annual cost for such vacations amounts to approximately $140,000. * * * Consequently, in justice to the company and to the association, we do believe it equitable to maintain the 2 weeks with pay, with a reduction of 1½ cents per hour from the basic rate of wage. * * * From a humanitarian point of view we are forced to consider the families of these carmen and in justice to them we decide that a reduction of the basic rate of wage is better than a change in working conditions, insofar as vacations are concerned. Therefore, the company's request in the form presented is denied.

The board granted the request of the trustees for the following changes in the present agreement:

Bus operators and 1-man car operators are to be allowed 5 minutes (instead of 10) at the beginning of the day and 10 minutes (instead of 20) at the end of the day for turning in work and putting up car or bus.

Men on night-work trains, Rapid Transit Lines, shall perform 7 hours' platform or cover time for which they shall receive 8 hours' pay.

Collectors shall have an allowance of 10 minutes (instead of 20) for making up and turning in work at the end of the day.

In regard to the request that "All runs shall pay actual platform time plus the making-up and turning-in time," the board ruled that in paying the men the time should be computed to the nearest 5-minute period instead of 15-minute period as at present.

The board denied the request of the trustees that meal tickets should be 45 cents instead of 65 cents.

The board also denied the request of the association for a new section reading as follows: "Rating for guards operating more than two cars shall be 5 cents per hour higher than the regular guard's rate."

Arbitrator Bentley W. Warren, representing the trustees, filed a dissenting opinion, closing with the following statement:

In my judgment the wage rates on the Boston Elevated are, and have been for many years, too high, from any point of view, whether measured by the nature of the work, the rates upon other properties, the annual income of workers of other industries where no greater skill or experience is required or the ability of the car riders to pay fares or of the taxpayers—especially after four years of depression—to come to the aid of the car riders.

Except as to the rates of hourly pay established by the award, I concur in its findings.

HOUSING

Building Operations in Principal Cities of the United States, October 1933

ACCORDING to reports received by the Bureau of Labor Statistics from 758 identical cities having a population of 10,000 or over, there was a decrease of 7.4 percent in indicated expenditures for total building operations, comparing October 1933 with September 1933. However, the number of buildings for which these permits were issued increased eight tenths of 1 percent.

The cost figures as shown in the following tables are as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. This excludes considerable building in the suburbs of some cities.

The States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, through their departments of labor, are cooperating with the Federal Bureau in the collection of these data.

Comparisons, September and October 1933

TABLE 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations, in 758 identical cities of the United States having a population of 10,000 or over, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 758 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	September 1933	October 1933	Percent of change	September 1933	October 1933	Percent of change
New England	$1,523,426	$1,649,745	+8.3	$2,223,238	$1,805,046	−18.8
Middle Atlantic	7,496,898	2,309,990	−69.2	7,298,145	4,119,751	−43.6
East North Central	1,123,648	922,447	−17.9	2,825,671	2,388,452	−15.5
West North Central	631,105	598,965	−5.1	695,643	1,089,760	+56.7
South Atlantic	817,492	814,210	−0.4	997,034	2,065,520	+107.2
South Central	473,609	430,679	−9.1	743,665	1,602,773	+115.5
Mountain and Pacific	1,540,127	1,453,414	−0.6	1,451,773	3,517,407	+24.2
Total	13,606,305	8,179,450	−39.9	16,235,169	16,588,709	+2.2

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	September 1933	October 1933	Percent of change	September 1933	October 1933	Percent of change	
New England	$1,135,080	$1,657,658	+46.0	$4,881,744	$5,112,449	+4.7	104
Middle Atlantic	3,995,593	4,664,386	+16.7	18,790,636	11,094,127	−41.0	173
East North Central	1,989,383	1,393,400	−30.0	5,938,702	4,704,299	−20.8	172
West North Central	650,569	607,163	−6.7	1,977,317	2,295,888	+16.1	69
South Atlantic	1,128,424	1,784,037	+58.1	2,942,950	4,663,767	+58.5	76
South Central	734,735	911,926	+24.1	1,952,009	2,945,378	+50.9	78
Mountain and Pacific	1,572,524	2,213,747	+40.8	4,564,424	7,184,568	+57.4	86
Total	11,206,308	13,232,317	+18.1	41,047,782	38,000,476	−7.4	758

Indicated expenditures for new residential buildings decreased 39.9 percent, comparing October with September. Decreases occurred in 6 of the 7 geographic divisions. In the New England States, however, there was an increase in the indicated expenditures for this type of building. Up to October 31, 1933, no contracts had been awarded from the public-works fund for housing projects. However, several allotments have been made for this type of structure, and when they materialize into contracts, it will undoubtedly stimulate residential building.

Indicated expenditures for nonresidential buildings increased 2.2 percent, 4 of the 7 geographic divisions showing increases ranging from 24.2 percent to 115.5 percent. The nonresidential building group is affected by contracts from public-works fund, as whenever a contract is awarded by the Federal Government for a building in a city having a population of 10,000 or over, the indicated expenditures would be shown therein.

There was an increase of 18.1 percent in expenditures for additions, alterations, and repairs. Five of the seven geographic divisions registered increases in this type of construction. The data for repairs are also somewhat influenced by awards from the public-works fund, as a number of Federal agencies awarded contracts for repairs to existing buildings.

The estimated cost of all buildings for which permits were issued during this period was $38,000,476. This is a decrease of 7.4 percent as compared with September. The decrease was wholly caused by a falling off of residential building in the Middle Atlantic States. There was a decrease of more than $5,000,000 in residential building in the above-mentioned geographic division. The decrease occurred in New York City. Permits were issued for several large apartment houses in that city during September.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 758 cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 758 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	296	286	824	909	2,524	2,589	3,644	3,784
Middle Atlantic	409	415	1,353	1,476	6,160	6,056	7,922	7,947
East North Central	249	194	1,473	1,380	3,046	2,776	4,768	4,350
West North Central	202	178	728	861	1,457	1,426	2,387	2,465
South Atlantic	196	214	478	519	2,928	2,956	3,602	3,689
South Central	152	170	509	504	2,154	2,325	2,815	2,999
Mountain and Pacific	415	369	1,102	1,086	4,378	4,597	5,895	6,052
Total	1,919	1,826	6,467	6,735	22,647	22,725	31,033	31,286
Percent of change		−4.8		+4.1		+0.3		+0.8

Three geographic divisions showed increases and four decreases in the number of new residential buildings. The decrease for the country as a whole was 4.8 percent.

New nonresidential buildings increased 4.1 percent in number, the largest increase being in the Middle Atlantic States. There was an increase of three tenths of 1 percent in the number of additions, alterations, and repairs. There was an increase of eight tenths of 1 percent in the total number of buildings for which permits were issued in October as compared with September. Six of the seven geographic divisions showed increases in the total number of building operations. In the East North Central States there was a sharp decrease in the number of building operations, however. This decrease was caused by the falling off in the number of additions, alterations, and repairs in that division.

Table 3 shows the estimated cost and number of families provided for in the different kinds of housekeeping dwellings for which permits were issued in 758 identical cities, in September and October, by geographic divisions.

TABLE 3.—ESTIMATED COST AND NUMBER OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 758 IDENTICAL CITIES IN SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	$1,411,126	$1,226,690	280	264	$78,300	$104,555	22	30
Middle Atlantic	1,809,748	1,830,440	376	367	146,850	280,750	42	74
East North Central	1,071,148	877,447	234	188	50,500	45,000	19	9
West North Central	612,105	585,665	198	175	19,000	13,300	8	5
South Atlantic	786,592	750,610	188	199	22,900	23,700	13	20
South Central	441,809	329,829	144	160	24,300	24,350	12	15
Mountain and Pacific	1,398,937	1,271,214	396	343	65,390	90,800	24	32
Total	7,531,465	6,871,895	1,816	1,696	407,240	582,455	140	185
Percent of change		−8.8		−6.6		+43.0		+32.1

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	$34,000	$21,500	15	12	$1,523,426	$1,352,745	317	306
Middle Atlantic	5,540,300	194,200	1,802	71	7,496,898	2,305,390	2,220	512
East North Central	0	0	0	0	1,121,648	922,447	253	197
West North Central	0	0	0	0	631,105	598,965	206	180
South Atlantic	8,000	39,900	4	31	817,492	814,210	205	250
South Central	7,500	75,000	4	60	473,609	429,179	160	235
Mountain and Pacific	75,800	90,400	33	43	1,540,127	1,452,414	453	418
Total	5,665,600	421,000	1,858	217	13,604,305	7,875,350	3,814	2,098
Percent of change		−92.6		−88.3		−42.1		−45.0

There was a decrease of nearly $700,000 comparing October expenditures for 1-family dwellings in these 758 cities with expenditures for September. The number of family-dwelling units provided in 1-family dwellings decreased 6.6 percent, comparing these 2 months. Decreases in number were shown in all divisions except the South Atlantic and South Central. No city has shown a pronounced increase in the number of 1-family dwellings constructed. In the whole of New York City, during September, permits were issued for only one hundred and thirteen 1-family dwellings, and one hundred and twenty-eight 1-family dwellings during October.

Indicated expenditures for 2-family dwellings increased 43 percent, while the family-dwelling units provided in this type of dwelling increased 32.1 percent. This increase occurred in the New England and Middle Atlantic States. In the New England States it was caused by the building of a few 2-family dwellings in a large number of cities. The increase in the Middle Atlantic States occurred for the most part in the Boroughs of the Bronx and Brooklyn.

Due to the inclusion in the September figures of several large apartment houses in New York City, notably in the Borough of Manhattan, there was a very pronounced decrease in expenditures and dwelling units in multifamily dwellings in October. Increases in expenditures, as well as family-dwelling units in the multifamily dwellings, however, occurred in the South Atlantic, South Central, and Mountain and Pacific divisions.

Each geographic division showed a decrease in indicated expenditures for housekeeping dwellings as a whole. Decreases ranged from a little over $3,000 in the South Atlantic States to approximately $5,000,000 in the Middle Atlantic States. There was a decrease of over 1,700 in the number of family-dwelling units provided in these cities during October as compared with September. All geographic divisions, except the South Atlantic and South Central, showed decreases in total dwelling units. The decreases, however, were small except in the Middle Atlantic division.

Table 4 shows the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations.

TABLE 4.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF INDICATED EXPENDITURES FOR BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES

[Monthly average, 1929=100]

Month	Families provided for	Indicated expenditures for—			
		New residential buildings	New nonresidential buildings	Additions, alterations, and repairs	Total building operations
1929					
September	70.2	63.7	81.3	95.0	73.7
October	64.4	61.6	107.9	115.2	85.7
1930					
September	51.3	44.4	73.8	64.2	58.2
October	58.3	44.9	53.5	58.1	49.7
1931					
September	30.1	24.8	41.8	41.0	33.5
October	33.7	25.4	34.8	39.8	30.8
1932					
September	10.8	7.5	11.4	21.7	10.7
October	9.5	6.6	12.6	22.8	11.0
1933					
September	11.8	8.6	12.8	25.5	13.1
October	6.5	5.2	13.1	30.1	12.1

The index numbers of families provided for and of indicated expenditures for new residential buildings were lower than for either September 1933 or October 1932.

October index numbers of indicated expenditures for nonresidential buildings and for additions, alterations, and repairs, were higher than for either the previous month or the corresponding month of last year.

The total building operations index, while slightly higher than for October 1932, was lower than for September 1933.

Construction from Public Funds

TABLE 5 shows the value of contracts awarded by the United States Government during September and October 1933, for construction projects of all kinds. This includes building construction; public roads; river, harbor, and flood-control projects; street and road building (other than public roads); naval vessels, reclamation projects; forest service; water and sewerage systems; and miscellaneous projects.

Whenever a contract is awarded for a public building in a city having a population of 10,000 or over, the data are included in the tables herein. Data for other types of public construction are not shown in the building-operations tables.

TABLE 5.—VALUE OF CONTRACTS AWARDED FOR ALL FEDERAL CONSTRUCTION PROJECTS BY THE UNITED STATES GOVERNMENT DURING SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS [1]

Geographic division	Building construction		Public roads		River, harbor, and flood-control projects	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	$118,925	$753,381	$1,522,605	$2,551,100	$14,315	$759,061
Middle Atlantic	4,213,759	2,292,948	5,523,492	4,934,839	1,569,201	3,545,755
East North Central	56,386	336,768	4,905,540	5,640,642	2,182,307	13,200,240
West North Central	42,890	741,882	7,402,109	8,151,255	13,090,220	6,904,804
South Atlantic	427,254	3,295,992	2,973,297	4,278,106	3,202,601	7,335,509
South Central	340,802	4,202,177	4,555,015	7,091,638	9,332,191	15,981,813
Mountain and Pacific	55,461	2,861,785	14,377,199	8,625,551	2,747,948	2,486,212
Total	5,255,477	[2] 14,489,933	41,259,257	41,273,131	32,138,783	50,213,394
Outside of Continental United States	3,325	1,047,282				273,884

Geographic division	Streets and roads [3]		Naval vessels		Reclamation projects		Forestry	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	0	$199,203	$39,486,283	$1,505	0	0	0	$27,585
Middle Atlantic	0	734,778	74,038,296	258,645	0	0	0	0
East North Central	0	389,511	231,158	11,145	0	0	0	1,328,570
West North Central	$225,329	323,733	0	0	$6,000	$21,200	0	748,330
South Atlantic	171,355	1,952,118	57,873,713	30,645	30,000	13,000	0	738,780
South Central	404	1,664,007	0	0	8,000	8,700	0	232,485
Mountain and Pacific	504,776	8,033,640	9,075,680	673,125	4,823,671	747,124	$5,456	5,555,634
Total	901,864	13,296,990	180,705,130	975,065	[4] 4,874,671	[5] 806,968	5,456	[6] 8,696,054
Outside of Continental United States	93,855	1,585,854		193,572				

[1] Subject to revision.
[2] Includes $5,000 not allocated by geographic divisions.
[3] Other than those reported by the Bureau of Public Roads.
[4] Includes $7,000 not allocated by geographic divisions.
[5] Includes $16,944 not allocated by geographic divisions.
[6] Includes $64,670 not allocated by geographic divisions.

TABLE 5.—VALUE OF CONTRACTS AWARDED FOR ALL FEDERAL CONSTRUCTION PROJECTS BY THE UNITED STATES GOVERNMENT DURING SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Water and sewerage systems		Miscellaneous		Total	
	September 1933	October 1933	September 1933	October 1933	September 1933	October 1933
New England	0	0	$74,401	$240,984	$41,216,529	$4,532,819
Middle Atlantic	0	$13,831	372,533	432,247	85,717,281	12,213,043
East North Central	0	5,000	32,326	90,444	7,407,717	21,002,320
West North Central	0	51,300	0	196,558	20,766,548	17,139,062
South Atlantic	$21,463	182,146	412,828	1,274,962	65,112,511	19,101,258
South Central	0	107,190	6,474	294,165	14,242,886	29,582,175
Mountain and Pacific	0	357,333	14,345	1,189,486	31,604,536	30,529,890
Total	21,463	716,800	912,907	3,718,846	[4]266,075,008	[7]134,187,181
Outside of continental United States			28,046	247,807	125,226	3,348,399

[4] Includes $7,000 not allocated by geographic divisions.
[7] See notes to detail.

During October 1933 contracts were awarded or work was started under force account on projects to cost $134,187,181. This compares with more than $266,000,000 for the month of September. The decrease was caused by the falling off in awards for naval vessels.

Awards for building construction; road construction; river, harbor, and flood-control projects; forestry work; and water and sewerage systems all showed pronounced increases, comparing awards made in October with those made in September.

The projects for which contracts were awarded in the Mountain and Pacific division during October were to cost over $30,000,000. This is a larger sum than was accounted for by construction awards in any other geographic division. Street and road work accounted for over $16,000,000 of this expenditure in the Mountain and Pacific division. Contracts awarded in the South Central States showed the next highest total. River, harbor, and flood-control projects accounted for the greatest amount of expenditures in this geographic division.

During September the largest expenditure for all projects occurred in the Middle Atlantic, South Atlantic, and New England States; large awards for naval vessels making up the greater part of the total. Contracts totaling over $3,000,000 were awarded outside of continental United States.

Table 6 shows the value of contracts awarded from public works fund for all non-Federal construction projects, by geographic divisions.

TABLE 6.—VALUE OF CONTRACTS AWARDED FOR ALL NON-FEDERAL CONSTRUCTION PROJECTS FROM PUBLIC WORKS ADMINISTRATION FUNDS DURING OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	Building construction	Streets [1] and roads	Water and sewerage systems	Miscellaneous	Total
New England	$268,431	$1,084,770	$1,168,217	$173,000	$2,694,418
Middle Atlantic	2,362,804	0	365,122	52,500	2,780,426
East North Central	1,590,689	76,310	3,269,608	0	4,936,607
West North Central	281,135	1,200,505	995,028	43,961	2,520,629
South Atlantic	200,208	190,000	124,048	0	514,256
South Central	479,058	85,709	60,117	0	624,884
Mountain and Pacific	640,378	204,779	35,115	0	880,272
Total	5,822,703	2,842,073	6,017,255	269,461	14,951,492
Outside continental United States			140,122		140,122

[1] Other than those reported by the Bureau of Public Roads.

During October contracts were awarded by the various State engineers of the Public Works Administration for construction projects to cost approximately $16,000,000. This sum includes the value of contracts awarded where work was let to an outside contractor. Where work was done by force account, the estimated cost of the project as furnished to the public-works engineer was used.

Work on non-Federal public-works projects was started in all of the geographic divisions. The East North Central got off to a flying start with over $5,500,000 worth of projects under way. The New England, Middle Atlantic, and West North Central divisions all started public-works projects to cost over $2,000,000.

Water and sewerage systems accounted for a larger percentage of this expenditure than any other type of construction. The cost of buildings to be constructed accounted for the next largest slice of the non-Federal public-works fund. The street and road paving as shown in this table does not include the road work done by the Bureau of Public Roads of the United States Department of Agriculture.

Table 7 shows the value of public buildings and highway construction awards as reported by the various State governments.

TABLE 7.—VALUE OF PUBLIC BUILDING AND HIGHWAY CONSTRUCTION AWARDS AS REPORTED BY THE STATE GOVERNMENTS, BY GEOGRAPHIC DIVISIONS

Geographic division	Value of awards for public buildings			Value of awards for highway construction	
	October 1932	September 1933	October 1933 [1]	September 1933	October 1933
New England	$71,674	$308,750	$262,617	$381,605	$326,531
Middle Atlantic	3,340,045	366,542	842,089	513,291	418,688
East North Central	221,457	237,626	528,032	240,440	1,929,455
West North Central	12,956	61,420	25,865	877,699	824,682
South Atlantic	121,113	131,638	215,545	392,441	181,780
South Central	617,247	502,734	10,171	882,799	333,280
Mountain and Pacific	211,376	626,093	211,899	1,952,938	1,166,609
Total	4,595,868	2,234,803	2,096,218	5,241,213	5,181,025

[1] Subject to revision

Data concerning building contracts were received direct from the State officials. Data concerning highway construction were obtained from the Bureau of Public Roads.

During October 1933 State awards for building construction totaled slightly over $2,000,000, which was practically the same as the September total, but not quite one half the October 1932 total.

Awards made by the State governments for highway construction totaled a little more than $5,000,000 for each of the 2 months, September and October.

Comparisons, October 1933 with October 1932

TABLE 8 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations, in 341 identical cities of the United States having a population of 25,000 or over, for the months of October 1933 and October 1932, by geographic divisions.

TABLE 8.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 341 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN OCTOBER 1932 AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings (estimated cost)			New nonresidential buildings (estimated cost)		
	October 1932	October 1933	Percent of change	October 1932	October 1933	Percent of change
New England	$843,180	$1,075,955	+27.6	$1,027,119	$1,306,341	+27.2
Middle Atlantic	2,289,831	1,733,840	−24.3	4,449,506	1,891,076	−57.5
East North Central	1,039,539	732,576	−28.8	1,640,810	1,845,789	+12.5
West North Central	647,429	499,445	−22.9	1,344,096	988,382	−26.5
South Atlantic	921,328	706,820	−23.3	1,560,741	2,013,412	+29.0
South Central	544,987	346,754	−36.4	3,898,003	1,444,223	−62.9
Mountain and Pacific	1,564,092	1,114,514	−28.7	1,422,852	2,757,282	+93.8
Total	7,850,386	6,209,904	−20.9	15,343,127	12,246,505	−20.2

Geographic division	Additions, alterations, and repairs (estimated cost)			Total construction (estimated cost)			Number of cities
	October 1932	October 1933	Percent of change	October 1932	October 1933	Percent of change	
New England	$884,604	$1,415,102	+60.0	$2,754,903	$3,797,398	+37.8	53
Middle Atlantic	3,516,256	4,238,217	+20.5	10,255,593	7,863,133	−23.3	67
East North Central	1,473,491	1,310,097	−11.1	4,153,840	3,888,462	−6.4	93
West North Central	486,065	523,928	+7.8	2,477,590	2,011,755	−18.8	25
South Atlantic	1,139,458	1,648,278	+44.7	3,621,527	4,368,510	+20.6	38
South Central	509,930	650,663	+27.6	4,952,920	2,441,640	−50.7	28
Mountain and Pacific	1,068,607	1,908,972	+78.6	4,055,551	5,780,768	+42.5	37
Total	9,078,411	11,695,257	+28.8	32,271,924	30,151,666	−6.6	341

Comparing October 1933 with October 1932, there was a decrease of 20.9 percent in indicated expenditures for new residential buildings. All geographic divisions, except the New England, showed decreases in expenditures for this type of structure.

There was also a decrease in expenditures for new nonresidential buildings. Four of the seven geographic divisions, however, showed increases ranging from 12.5 percent in the East North Central States to 93.8 percent in the Mountain and Pacific States.

Indicated expenditures for additions, alterations, and repairs increased 28.8 percent comparing October 1933 with the same month of the previous year. Increases for this type of structure were shown in all geographic divisions, except the East North Central.

The total expenditures for building construction in these 341 cities, during October 1933, was 6.6 percent less than during the same month of last year. Four geographic divisions registered decreases in total expenditures and three showed increases.

Table 9 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 341 identical cities having a population of 25,000 or over for the months of October 1933 and October 1932, by geographic divisions.

TABLE 9.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 341 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN OCTOBER 1932 AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933
New England	166	161	665	572	2,169	2,115	3,000	2,848
Middle Atlantic	425	311	1,547	1,115	4,303	5,489	6,275	6,915
East North Central	200	161	1,464	1,200	2,401	2,557	4,065	3,918
West North Central	187	140	802	733	941	1,266	1,930	2,139
South Atlantic	249	160	563	453	2,906	2,721	3,718	3,334
South Central	223	129	394	432	1,718	1,744	2,335	2,305
Mountain and Pacific	492	295	1,164	918	3,469	3,722	5,125	4,935
Total	1,942	1,357	6,599	5,423	17,907	19,614	26,448	26,394
Percent of change		−30.1		−17.8		+9.5		−0.2

New residential buildings decreased 30.1 percent in number, comparing October 1933 with October 1932. All geographic divisions showed decreases in the number of residential buildings.

The number of new nonresidential buildings decreased 17.8 percent. The South Central was the only geographic division registering an increase in new nonresidential buildings, comparing these two periods.

The number of additions, alterations, and repairs increased 9.5 percent. Five of the seven geographic divisions showed increases in this type of structure.

The decrease in the total number of building operations was two tenths of 1 percent, 5 geographic divisions showing decreases and 2 showing increases.

Table 10 shows the number of families provided for in the different kinds of housekeeping dwellings, together with the estimated cost of such dwellings for which permits were issued in 341 identical cities during October 1933 and October 1932, by geographic divisions.

TABLE 10.—ESTIMATED COST OF AND NUMBER OF FAMILIES PROVIDED FOR IN DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 341 IDENTICAL CITIES IN OCTOBER 1932 AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	1-family dwellings				2-family dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933
New England	$755,180	$717,400	153	151	$61,500	$67,555	20	17
Middle Atlantic	1,643,731	1,324,590	370	274	342,300	251,250	88	62
East North Central	837,107	687,576	186	155	65,432	45,000	18	9
West North Central	613,979	487,945	181	138	9,750	11,500	6	4
South Atlantic	872,178	662,020	240	152	24,650	4,900	10	6
South Central	437,177	252,204	209	123	29,560	19,550	15	10
Mountain and Pacific	1,186,102	962,314	432	277	218,898	73,300	88	26
Total	6,345,454	5,094,049	1,771	1,270	752,090	473,055	245	134
Percent of change		−19.7		−28.3		−37.1		−45.3

TABLE 10.—ESTIMATED COST OF AND NUMBER OF FAMILIES PROVIDED FOR IN DIFFERENT KINDS OF HOUSEKEEPING DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 341 IDENTICAL CITIES IN OCTOBER 1932 AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS—Continued

Geographic division	Multifamily dwellings				Total, all kinds of housekeeping dwellings			
	Estimated cost		Families provided for		Estimated cost		Families provided for	
	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933	October 1932	October 1933
New England	$26,500	0	10	0	$843,180	$784,955	183	168
Middle Atlantic	278,800	$158,000	89	54	2,264,831	1,733,840	547	390
East North Central	43,000	0	11	0	945,539	732,576	215	164
West North Central	23,700	0	12	0	647,429	499,445	199	142
South Atlantic	24,500	39,900	16	31	921,328	706,820	266	189
South Central	11,800	75,000	14	60	478,537	346,754	238	193
Mountain and Pacific	159,092	78,900	78	39	1,564,092	1,114,514	598	342
Total	567,392	351,800	230	184	7,664,936	5,918,904	2,246	1,588
Percent of change		−38.0		−20.0		−22.8		−29.3

Indicated expenditures for 1-family dwellings decreased 19.7 percent, comparing October 1933 with the corresponding month of the previous year. This decrease was spread over all of the seven geographic divisions. The number of families provided for in these dwellings decreased 28.3 percent, all geographic divisions registering the decrease.

Expenditures for 2-family dwellings decreased in all geographic divisions except the New England and the West North Central. The number of families provided for in 2-family dwellings decreased in all 7 geographic divisions.

The South Atlantic and South Central States showed slight increases in both indicated expenditures and in the number of families provided for in apartment houses; the other five geographic divisions showed decreases.

Expenditures for housekeeping dwellings as a whole and the number of families provided for in these dwellings showed decreases in each of the seven geographic divisions.

Details by Cities

TABLE 11 shows the estimated expenditures for new residential buildings, for new nonresidential buildings, and for total building operations, together with the number of families provided for in new dwellings, in each of the cities of the United States having a population of 10,000 or over for which reports were received for October 1933.

Permits were issued during October for the following important building projects: In West Hartford, Conn., for a school building to cost $235,000; in Newark, N.J., for a public utilities building to cost $1,500,000; and in Los Angeles, Calif., for factory buildings to cost $1,600,000. A contract was awarded by the Bureau of Yards and Docks of the Navy Department for a machinery and electrical shop in the Navy Yard, Bremerton, Wash., to cost $575,000.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933

New England States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Connecticut:				
Ansonia	$5,000	$7,750	$13,300	1
Bridgeport	50,380	8,655	73,057	14
Bristol	0	6,705	10,183	0
Danbury	5,500	6,300	19,910	1
Derby	10,500	0	10,723	2
East Hartford	0	500	10,270	0
Fairfield	32,600	500	50,485	6
Greenwich	3,000	57,750	76,750	1
Hamden	9,000	8,550	21,785	3
Hartford	4,500	10,355	47,192	1
Meriden	3,700	60,633	79,128	1
Middletown	0	1,798	3,523	0
Milford	6,000	1,536	20,123	3
Naugatuck	18,000	9,600	34,925	6
New Britain	0	375	11,023	0
New Haven	8,000	3,873	21,103	1
Norwalk	17,300	22,115	45,570	7
Norwich	5,500	7,505	18,650	2
Stamford	5,400	1,305	23,850	2
Stratford	8,175	21,755	30,677	3
Torrington	3,000	3,310	15,412	1
Wallingford	0	350	3,785	0
Waterbury	11,800	4,800	27,775	4
West Hartford	89,000	239,100	342,185	14
Willimantic	1,000	0	2,600	2
Maine:				
Auburn	50,000	26,600	78,100	15
Biddeford	1,000	625	2,125	1
Portland	4,800	191,150	202,880	2
South Portland	0	1,435	1,735	0
Westbrook	0	300	1,540	0
Massachusetts:				
Arlington	32,500	2,400	35,585	6
Attleboro	23,250	1,495	25,420	6
Belmont	44,500	4,725	52,090	7
Beverly	9,000	1,460	12,305	2
Boston [1]	212,000	137,941	1,110,385	18
Braintree	24,315	5,400	31,020	5
Brockton	3,000	2,525	11,495	1
Brookline	37,000	7,175	55,785	2
Cambridge	6,000	2,435	40,822	1
Chelsea	0	700	6,021	0
Chicopee	1,500	16,750	19,650	1
Dedham	0	2,025	14,105	0
Easthampton	0	9,000	9,300	0
Everett	0	0	18,700	0
Fall River	0	15,483	23,547	0
Fitchburg	1,500	1,133	3,433	1
Framingham	6,500	705	10,355	2
Gardner	6,000	5,410	12,685	1
Gloucester	500	3,650	7,050	1
Haverhill	500	1,850	11,665	1
Holyoke	10,000	11,500	29,050	2
Lawrence	19,500	1,100	28,677	5
Leominster	0	23,518	38,986	0
Lowell	6,300	425	9,150	2
Lynn	4,000	50,525	79,715	1
Malden	7,500	4,660	15,925	2
Marlborough	0	1,600	2,000	0
Massachusetts—Continued.				
Medford	$3,000	$2,000	$12,160	1
Melrose	50,250	2,750	55,245	8
Milton	37,050	3,160	98,840	9
Needham	57,500	3,250	65,800	7
New Bedford	0	6,795	27,375	0
Newburyport	0	230,400	230,400	0
Newton	143,500	2,600	164,505	15
North Adams	5,500	290	8,420	1
Northampton	7,650	1,350	14,400	10
North Attleborough	1,000	675	1,675	2
Norwood	2,000	275	5,025	1
Peabody	0	4,100	9,050	0
Pittsfield	8,000	1,275	19,275	2
Plymouth	3,500	1,100	8,200	2
Quincy	15,800	4,025	30,785	3
Revere	3,000	650	12,700	1
Salem	6,000	20,750	42,302	1
Somerville	0	15,150	34,457	0
Southbridge	0	43,350	43,350	0
Springfield	1,975	4,700	16,090	2
Stoneham	11,000	925	15,225	2
Swampscott	4,600	1,900	10,000	1
Taunton	0	1,339	7,370	0
Waltham	12,400	100,505	114,715	5
Watertown	0	1,350	7,450	0
Wellesley	66,000	34,300	108,100	7
Westfield	3,500	0	4,775	2
West Springfield	2,200	688	5,296	1
Winchester	33,500	960	36,955	4
Winthrop	1,400	1,555	4,866	1
Woburn	1,000	945	2,875	1
Worcester	37,750	23,560	77,157	9
New Hampshire:				
Concord	500	133,036	133,836	1
Manchester	16,100	27,057	66,861	7
Rhode Island:				
Central Falls	0	485	2,505	0
Cranston	11,700	9,363	24,043	4
East Providence	32,700	36,428	78,850	7
Newport	19,250	3,450	61,373	4
North Providence	0	900	1,650	0
Pawtucket	8,000	1,165	16,954	3
Providence	19,200	36,000	145,650	4
Warwick	9,800	7,350	30,150	5
Westerly	5,000	5,350	12,987	2
West Warwick	3,500	500	4,000	1
Woonsocket	1,500	3,845	13,242	1
Vermont:				
Bennington	10,500	0	10,500	4
Burlington	184,400	2,625	199,725	5
Total	1,649,745	1,805,046	5,112,449	306

Middle Atlantic States

New Jersey:				
Atlantic City	0	0	$24,859	0
Bayonne	0	0	10,050	0
Belleville	$7,200	$10,145	21,060	3
Bloomfield	0	1,200	5,700	0
Bridgeton	0	530	530	0
Burlington	0	650	2,680	0
Camden	500	24,774	41,194	1
New Jersey—Continued.				
Clifton	$25,000	$3,800	$32,005	5
Dover	0	500	1,775	0
East Orange	0	5,280	12,841	0
Elizabeth	11,000	7,800	31,917	2
Englewood	6,300	400	7,700	1
Garfield	0	1,100	2,400	0

[1] Applications filed

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
New Jersey—Continued.				
Hackensack	0	$1,785	$7,213	0
Harrison	0	40,300	43,800	0
Hillside Twp.	$7,000	0	7,000	4
Hoboken	0	0	8,208	0
Irvington	5,500	1,600	10,310	1
Jersey City	3,500	43,450	72,525	1
Kearny	0	2,550	2,740	0
Linden	2,000	33,905	38,095	1
Long Branch	0	2,215	5,935	0
Lyndhurst	0	3,200	3,750	0
Maplewood Twp.	38,500	3,025	45,335	4
Montclair	15,000	2,200	37,755	2
Morristown	0	600	4,595	0
Newark	14,500	1,624,650	1,689,525	4
New Brunswick	0	25	10,342	0
Nutley	4,500	3,960	10,138	2
Orange	0	2,500	49,335	0
Passaic	17,500	2,975	29,453	2
Paterson	8,100	10,585	48,745	2
Perth Amboy	0	315	1,745	0
Phillipsburg	0	150	150	0
Plainfield	32,000	2,050	39,820	5
Pleasantville	2,500	200	2,825	1
Red Bank	900	170	2,905	1
Ridgefield Park	0	690	1,190	0
Ridgewood	13,150	1,280	15,036	2
Rutherford	0	1,040	6,280	0
South Orange	12,000	1,750	15,603	1
South River [2]	0	2,600	4,800	0
Summit	29,500	2,000	37,530	4
Teaneck Twp.	21,100	3,164	30,684	4
Trenton	3,200	8,843	32,725	1
Union City	0	0	20,785	0
Union Twp.	17,800	16,610	35,120	3
Weehawken	0	500	2,715	0
Westfield	12,000	1,410	14,340	1
West New York	0	0	2,735	0
West Orange	21,200	4,565	28,935	4
New York:				
Albany	67,800	9,155	112,224	5
Amsterdam	0	2,850	2,950	0
Auburn	13,600	1,285	20,235	4
Binghamton	11,400	28,023	67,995	3
Buffalo	10,250	418,612	492,378	4
Cohoes	0	500	2,500	0
Corning	0	12,500	20,885	0
Dunkirk	0	615	4,295	0
Elmira	0	24,158	30,736	0
Endicott	24,800	3,395	33,545	4
Freeport	9,100	11,250	22,500	2
Fulton	5,000	925	6,125	1
Glen Cove	16,300	1,350	18,550	5
Glens Falls	0	330	2,830	0
Herkimer	0	0	0	0
Hornell	0	0	0	0
Irondequoit	2,500	980	4,255	1
Ithaca	5,000	1,300	9,450	1
Jamestown	0	900	4,780	0
Johnson City	5,500	60,300	66,500	1
Kenmore	9,500	7,885	17,873	3
Kingston	19,300	8,635	31,192	4
Lackawanna	9,200	0	13,700	2
Lockport	600	490	3,775	1
Lynbrook	0	395	3,965	0
Mamaroneck	1,400	0	17,900	1
Massena	0	0	1,800	0
Middletown	26,100	125	26,525	5
New York—Continued.				
Mount Vernon	$38,500	$4,000	$65,345	5
Newburgh	6,000	500	51,150	1
New Rochelle	22,400	16,350	44,615	3
New York City:				
The Bronx [1]	266,500	80,150	738,465	68
Brooklyn [1]	175,900	242,750	1,323,565	36
Manhattan [1]	136,000	200,700	1,563,225	34
Queens [1]	327,900	123,709	884,291	84
Richmond [1]	40,200	11,139	108,114	9
Niagara Falls	3,700	1,957	39,441	1
North Tonawanda	0	1,300	1,470	0
Ogdensburg	0	1,680	4,680	0
Oneida	0	5,650	6,675	0
Oneonta	0	0	1,800	0
Ossining	0	2,150	8,425	0
Oswego	0	15,350	15,550	0
Peekskill	20,100	7,900	46,860	8
Plattsburg	24,000	990	26,090	8
Port Chester	0	496	3,471	0
Port Jervis	0	0	0	0
Poughkeepsie	6,500	18,275	26,950	1
Rensselaer	2,500	24,350	28,525	1
Rochester	15,500	113,455	175,599	3
Rockville Center	61,300	650	64,710	8
Saratoga Springs	1,800	0	93,648	4
Schenectady	4,500	13,270	39,612	1
Syracuse	47,200	7,675	74,725	8
Tonawanda	2,800	50,175	53,125	1
Troy	26,000	10,655	57,792	4
Utica	16,000	4,400	21,550	4
Valley Stream	1,200	1,375	8,446	1
Watertown	1,500	7,600	14,925	1
White Plains	16,800	1,100	25,525	2
Yonkers	45,000	3,650	68,854	8
Pennsylvania:				
Abington Twp.	4,500	2,700	10,303	1
Allentown	17,700	17,406	44,011	2
Altoona	2,000	3,135	18,420	1
Ambridge [2]	0	600	6,100	0
Arnold	4,200	0	4,200	1
Berwick	3,000	500	3,500	2
Bethlehem	5,250	2,900	11,925	1
Braddock	0	0	0	0
Bradford	0	1,310	10,271	0
Bristol	0	0	0	0
Canonsburg	0	3,000	4,000	0
Carlisle	0	200	1,725	0
Chambersburg	0	600	600	0
Charleroi	0	0	0	0
Chester	0	1,000	2,250	0
Clairton	0	270	690	0
Coatsville	0	0	316	0
Connellsville	0	500	605	0
Conshohocken	0	850	1,150	0
Coraopolis	0	0	0	0
Donora	0	0	500	0
Du Bois	0	0	0	0
Duquesne	2,200	250	3,400	1
Easton	0	785	12,435	0
Ellwood City	0	0	0	0
Erie	15,000	4,365	26,630	4
Greensburg	0	0	0	0
Harrisburg	5,840	3,425	20,591	1
Haverford	0	2,075	7,016	0
Hazleton	8,200	2,175	24,115	2
Jeannette	0	150	150	0

[1] Applications filed.
[2] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

Middle Atlantic States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Pennsylvania—Continued.				
Johnstown	$1,500	$1,755	$10,519	1
Kingston	26,600	8,200	36,150	9
Lancaster	0	7,400	14,000	0
Latrobe	0	0	1,700	0
Lower Merion	48,500	6,946	91,365	6
McKeesport	3,500	821	12,940	1
McKees Rocks [1]	0	0	0	0
Mahonoy City	0	0	0	0
Meadville	0	217,950	230,890	0
Monessen	6,500	280	7,390	2
Mount Lebanon	27,100	0	27,600	3
Munhall	0	0	1,275	0
New Castle	3,800	1,665	6,525	1
Norristown	0	1,455	9,970	0
North Braddock	0	0	0	0
Oil City	0	0	1,875	0
Philadelphia	119,000	132,845	582,751	30
Phoenixville	0	300	550	0
Pittsburgh	49,400	173,194	274,345	14
Pottstown	0	$1,825	$4,150	0
Pottsville	$5,500	350	7,850	1
Scranton	8,500	23,446	43,716	2
Sharon [1]	20,000	2,675	22,675	1
Steelton	0	0	0	0
Sunbury	0	300	16,450	0
Swissvale	6,000	0	6,000	1
Tamaqua	0	700	1,100	0
Uniontown	0	9,550	9,950	0
Upper Darby	29,000	3,051	36,281	4
Vandergrift	0	0	0	0
Warren	0	0	5,923	0
Washington	0	710	810	0
Waynesboro	0	0	0	0
West Chester	0	450	625	0
Wilkes-Barre	19,600	1,500	44,593	7
Wilkinsburg	0	0	2,470	0
Williamsport	9,000	782	15,809	1
York	0	26,880	42,438	0
Total	2,309,990	4,119,751	11,094,127	512

East North Central States

Illinois:				
Alton	0	$5,562	$9,510	0
Aurora	$5,000	2,685	14,550	1
Belleville	3,300	560	5,485	2
Berwyn	0	6,100	6,650	0
Bloomington	0	3,600	3,600	0
Blue Island	0	2,850	6,735	0
Brookfield	0	0	0	0
Cairo	0	100	100	0
Calumet City	0	360	760	0
Canton	0	180	780	0
Centralia	0	0	0	0
Champaign	5,000	0	5,275	1
Chicago	61,800	318,362	653,166	15
Chicago Heights	0	4,800	5,650	0
Cicero	0	13,430	14,230	0
Danville	0	6,100	8,700	0
Decatur	0	2,215	3,015	0
East St. Louis	1,000	970	4,260	1
Elgin	2,000	300	12,840	1
Elmhurst	7,800	750	8,550	1
Elmwood Park	0	775	1,135	0
Evanston	19,000	2,000	36,750	2
Forest Park	0	860	2,185	0
Freeport	0	785	2,285	0
Granite City	0	0	0	0
Harvey	0	1,000	1,000	0
Highland Park	43,000	145	45,685	2
Joliet	0	0	3,944	0
Kankakee	6,000	700	9,500	1
La Grange	0	150	5,850	0
Maywood	1,600	1,225	3,200	1
Melrose Park	0	335	335	0
Moline	0	135	5,025	0
Mount Vernon	0	0	0	0
Oak Park	0	27,305	39,045	0
Ottawa	0	0	0	0
Park Ridge	0	1,125	4,695	0
Peoria	7,000	20,225	74,870	2
Quincy	0	4,390	5,940	0
Rockford	$8,000	$475	$17,725	1
Rock Island	0	1,029	3,999	0
Springfield	22,300	44,030	73,270	4
Sterling	500	150	1,510	1
Streator	0	0	271	0
Urbana	0	0	8,475	0
Waukegan	0	0	2,850	0
Wilmette	11,000	200,600	217,700	2
Winnetka	0	19,050	19,450	0
Indiana:				
Bedford	0	40	40	0
Connersville	0	20	20	0
Crawfordsville	0	50,925	51,525	0
East Chicago	0	0	1,500	0
Elkhart	0	175	2,106	0
Elwood	0	125	375	0
Evansville	7,600	2,175	21,373	3
Fort Wayne	25,850	254,666	340,929	3
Gary	0	6,850	9,300	0
Goshen	0	250	2,450	0
Hammond	1,350	6,250	8,486	1
Huntington	0	[illegible]	1,665	0
Indianapolis	5,300	125,[illegible]27	166,878	3
Jeffersonville	0	0	1,000	0
Kokomo	0	265	1,725	0
Lafayette	0	300	300	0
La Porte	0	1,575	3,335	0
Logansport	0	435	1,740	0
Marion	3,000	0	9,485	1
Michigan City	0	5,340	5,630	0
Mishawaka	600	1,340	4,840	1
Muncie	2,115	1,225	9,656	3
New Castle	0	0	4,000	0
Richmond	0	3,200	8,900	0
South Bend	8,000	8,340	22,710	2
Terre Haute	7,900	46,270	64,767	3
Vincennes	0	0	1,955	0
Whiting	0	0	2,040	0
Michigan:				
Adrian	0	1,565	1,565	0
Ann Arbor	6,000	2,599	17,958	2

[1] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

East North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Michigan—Con.				
Battle Creek	0	$650	$2,850	0
Bay City	$3,000	1,185	10,174	1
Dearborn	10,600	28,268	40,431	2
Detroit	124,350	93,910	396,936	24
Escanaba	2,400	200	2,600	2
Ferndale	0	17,214	17,914	0
Flint	1,000	6,659	28,664	1
Grand Rapids	0	9,145	22,945	0
Grosse Pointe Park	15,321	140	15,811	1
Hamtramck	6,500	8,600	16,640	1
Highland Park	0	400	12,940	0
Holland	0	300	1,397	0
Ironwood	0	50	60	0
Jackson	0	100,245	100,967	0
Kalamazoo	0	2,902	7,034	0
Lansing	0	1,900	5,285	0
Lincoln Park	0	408	5,508	0
Marquette	0	250	450	0
Menominee	0	2,000	2,000	0
Monroe	0	61,356	62,956	0
Muskegon	0	420	3,740	0
Owosso	0	180	1,780	0
Pontiac	0	3,355	3,800	0
Royal Oak	0	460	800	0
Saginaw	4,250	8,645	17,856	3
Sault Sainte Marie	2,150	575	4,462	2
Wyandotte	2,600	325	5,725	1
Ypsilanti [1]	0	300	350	0
Ohio:				
Akron	12,300	38,905	71,875	3
Alliance	0	75	75	0
Ashland	0	850	1,300	0
Ashtabula	0	627	1,327	0
Bellaire	0	0	0	0
Bucyrus	0	0	0	0
Cambridge	0	0	0	0
Canton	0	3,905	6,560	0
Cincinnati	138,800	45,085	241,100	25
Cleveland	59,500	77,800	221,975	9
Cleveland Heights	11,200	680	15,730	2
Columbus	0	14,850	122,600	0
Cuyahoga Falls	0	250	250	0
Dayton	0	15,371	40,301	0
East Cleveland	10,000	705	11,134	1
Elyria	0	400	5,655	0
Euclid	23,000	8,100	31,100	4
Findlay	0	100	600	0
Fostoria	0	350	350	0
Fremont	0	$450	$1,650	0
Hamilton	0	1,540	3,735	0
Ironton	0	275	855	0
Lakewood	$14,500	6,330	23,370	2
Lima	0	0	450	0
Lorain	0	505	1,435	0
Mansfield	6,500	1,505	11,214	2
Marion	0	2,065	2,970	0
Massillon	5,800	375	7,645	1
Middletown	0	810	4,985	0
Newark	0	43,100	45,450	0
Parma	0	950	1,500	0
Piqua	2,500	0	2,575	1
Portsmouth	4,000	1,228	7,834	2
Salem	0	100	100	0
Sandusky	3,200	985	4,810	1
Shaker Heights	33,700	24,100	61,050	3
Springfield	0	1,465	4,240	0
Steubenville	6,000	1,400	8,500	1
Struthers	0	375	375	0
Tiffin	0	0	0	0
Toledo	12,000	10,358	35,817	4
Warren	4,000	1,085	9,595	4
Wooster	2,500	600	3,350	1
Xenia	500	6,075	6,575	1
Youngstown	0	134,430	144,560	0
Wisconsin:				
Appleton	6,300	85,510	96,295	3
Beloit	0	106,475	107,125	0
Cudahy	0	300	1,325	0
Eau Claire	500	3,150	10,200	1
Fond du Lac	0	6,665	8,850	0
Green Bay	7,900	3,520	14,720	5
Janesville	3,300	0	3,600	1
Kenosha	0	1,205	1,930	0
Madison	7,000	2,500	14,985	1
Marinette	0	715	1,215	0
Milwaukee	26,200	133,726	207,391	5
Oshkosh	5,661	525	10,261	2
Racine	22,000	4,200	30,193	1
Sheboygan	21,200	1,790	42,776	5
Shorewood	0	300	1,515	0
South Milwaukee	0	0	0	0
Superior	0	3,200	10,340	0
Two Rivers	0	0	833	0
Waukesha	7,300	7,450	15,700	2
Wausau	7,700	725	9,675	4
Wauwatosa	13,000	10,235	23,760	2
West Allis	0	3,285	14,510	0
Total	922,447	2,388,452	4,704,299	197

West North Central States

Iowa:				
Ames	0	$2,100	$3,150	0
Burlington	0	550	550	0
Cedar Rapids	$11,750	2,308	44,246	6
Council Bluffs	0	3,769	14,136	0
Davenport	7,100	55,583	96,350	2
Des Moines	23,565	9,315	43,244	12
Dubuque	5,100	4,332	31,239	1
Fort Dodge	0	0	1,000	0
Iowa City	6,000	750	14,799	2
Marshalltown	0	1,000	1,150	0
Mason City	13,000	23,793	44,209	8
Muscatine	2,800	235	6,185	2
Ottumwa	4,000	4,350	9,350	3
Sioux City	20,500	32,515	55,990	4
Waterloo	18,000	1,095	21,500	2
Kansas:				
Arkansas City	0	0	0	0
Atchison	0	$9,900	$10,200	0
Dodge City	0	0	250	0
Eldorado	0	625	6,830	0
Emporia	$6,300	0	6,300	2
Fort Scott	0	0	1,350	0
Hutchinson	6,000	47,031	56,301	2
Kansas City	10,700	6,610	22,495	5
Lawrence	0	350	3,125	0
Leavenworth	13,500	2,300	16,300	3
Manhattan	9,000	90	9,090	1
Newton	3,220	330	5,625	1
Pittsburg	0	0	0	0
Salina	3,000	8,010	11,885	2
Topeka	8,400	3,205	14,715	4
Wichita	0	4,257	15,672	0

[1] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

West North Central States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Minnesota:				
Albert Lea	0	0	0	0
Duluth	$4,000	$1,650	$49,693	2
Faribault	4,600	4,300	11,900	3
Hibbing	0	2,150	6,210	0
Mankato	3,000	0	3,435	1
Minneapolis	101,400	173,030	347,935	27
Rochester	0	6,750	13,750	0
St. Cloud	2,750	820	5,130	1
St. Paul	25,560	43,971	152,276	7
South St. Paul	3,000	205	3,820	1
Winona	0	0	1,125	0
Missouri:				
Columbia	0	0	0	0
Hannibal	0	350	2,150	0
Independence	0	7,500	7,500	0
Jefferson City	17,150	5,400	36,195	3
Joplin	2,000	1,625	7,935	2
Kansas City	36,500	15,100	83,900	11
Maplewood	0	1,250	2,950	0
Moberly	2,400	1,000	3,900	1
St. Charles	0	250	1,350	0
St. Joseph	1,500	52,043	59,545	1
Missouri—Con.				
St. Louis	$116,450	$446,878	$629,646	28
Springfield	9,500	4,950	21,412	3
Nebraska:				
Beatrice	0	60	260	0
Fremont	0	300	1,950	0
Grand Island	0	6,550	7,785	0
Hastings	0	350	350	0
Lincoln	9,000	2,345	29,413	1
North Platte	0	0	0	0
Omaha	75,050	66,100	178,467	16
North Dakota:				
Fargo	0	5,150	9,000	0
Grand Forks	6,300	515	8,515	5
Minot	0	13,585	14,835	0
South Dakota:				
Aberdeen	0	0	4,290	0
Huron	0	0	0	0
Mitchell	0	0	0	0
Rapid City	3,500	560	5,285	2
Sioux Falls	3,370	620	16,745	3
Total	598,965	1,089,760	2,295,888	180

South Atlantic States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Delaware:				
Wilmington	$36,000	$350	$52,805	6
District of Columbia:				
Washington	359,550	86,049	784,935	64
Florida:				
Gainesville	2,750	635	5,965	4
Jacksonville	13,200	341,385	398,585	13
Key West	2,500	0	2,500	1
Miami	1,950	24,580	85,423	3
Orlando	0	3,150	30,337	0
Pensacola	4,950	671,825	687,127	5
St. Augustine	0	5,000	8,135	0
St. Petersburg	4,500	6,800	35,500	1
Sanford	0	0	0	0
Tampa	2,150	4,625	30,738	4
West Palm Beach	2,964	265	14,154	2
Georgia:				
Athens	2,000	0	4,525	1
Atlanta	30,000	3,543	88,331	22
Augusta	6,000	0	9,132	4
Brunswick	0	0	1,820	0
Columbus	20,640	54,750	81,831	5
Lagrange	3,400	0	3,560	3
Rome	0	0	4,025	0
Savannah	0	3,800	7,386	0
Maryland:				
Annapolis	7,800	600	82,481	1
Baltimore	58,000	281,005	717,555	15
Cumberland	0	18,375	19,775	0
Frederick	0	410	5,461	0
Hagerstown	0	1,370	2,245	0
Salisbury	13,800	2,675	16,625	12
North Carolina:				
Asheville	3,500	850	10,613	1
Charlotte	6,000	5,140	21,860	1
Concord	3,700	0	4,000	2
Durham	33,700	0	39,850	11
Elizabeth City	2,300	10,300	12,600	1
Fayetteville	0	7,500	9,970	0
Gastonia	0	0	1,100	0
Goldsboro	7,700	365	8,265	2
Greensboro	55,500	1,232	74,927	2
High Point	3,125	535	4,785	2
Kinston	0	1,000	2,900	0
New Bern	0	0	2,000	0
North Carolina—Contd.				
Raleigh	0	$3,040	$3,040	0
Rocky Mount	$700	900	1,975	1
Salisbury	4,510	0	5,790	2
Statesville	0	0	1,600	0
Thomasville	0	135	135	0
Wilmington	0	75	6,432	0
Wilson	0	0	150	0
Winston-Salem	15,075	4,417	32,790	7
South Carolina:				
Anderson	3,350	7,260	12,295	3
Charleston	1,600	0	88,688	2
Columbia	0	1,387	9,917	0
Greenville	1,020	4,390	13,215	1
Greenwood	0	500	2,920	0
Rock Hill	7,009	2,500	16,025	11
Sumter	3,500	0	3,500	2
Virginia:				
Alexandria	7,509	490	12,433	3
Charlottesville	8,000	0	10,878	3
Danville	600	3,798	6,704	1
Hopewell	1,200	85	1,755	1
Lynchburg	8,100	9,150	36,400	3
Newport News	5,600	2,994	28,533	4
Norfolk	13,896	13,095	138,546	4
Petersburg	0	755	755	0
Portsmouth	0	396,958	647,754	0
Richmond	0	54,735	100,808	0
Roanoke	9,000	667	15,544	2
Staunton	4,700	100	5,030	2
Suffolk	0	4,330	5,630	0
Winchester	13,550	25	14,075	3
West Virginia:				
Bluefield	0	100	1,620	0
Charleston	4,800	5,800	21,299	2
Clarksburg	0	1,835	2,575	0
Fairmont	6,800	2,750	13,900	2
Huntington	6,000	1,035	11,310	3
Martinsburg	0	0	500	0
Morgantown	0	650	2,410	0
Wheeling	0	3,450	13,010	0
Total	814,210	2,065,520	4,663,767	250

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

South Central States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Alabama:				
Anniston	0	0	$5,815	0
Bessemer	0	$547	1,722	0
Birmingham	$500	6,020	29,271	1
Decatur	0	750	750	0
Dothan	0	14,000	16,600	0
Fairfield	0	0	725	0
Huntsville	0	0	1,500	0
Mobile	7,900	1,010	22,088	8
Montgomery	0	72,756	97,629	0
Selma	2,600	0	4,765	1
Arkansas:				
Blytheville	500	0	1,500	1
El Dorado	0	0	50	0
Fort Smith	0	0	5,996	0
Hot Springs	0	1,000	1,000	0
Little Rock	0	2,031	13,454	0
Texarkana	3,600	0	8,650	3
Kentucky:				
Fort Thomas	6,000	0	6,000	1
Henderson	0	0	0	0
Lexington	0	360	9,867	0
Louisville	26,000	150,200	247,175	6
Paducah	2,000	0	5,000	2
Louisiana:				
Alexandria	6,000	725	34,916	1
Lafayette	0	0	0	0
New Orleans	26,800	1,085	110,140	7
Shreveport	6,462	29,725	58,092	7
Mississippi:				
Biloxi	1,500	1,500	3,000	0
Clarksdale	0	0	825	0
Columbus	0	3,650	3,650	0
Greenwood	0	0	0	0
Gulfport	3,175	0	3,175	2
Hattiesburg	0	900	3,900	0
Jackson	0	675	13,020	0
Laurel	0	0	0	0
Meridian	0	2,000	9,760	0
Vicksburg	0	0	386	0
Oklahoma:				
Ada	0	450	450	0
Ardmore	0	300	300	0
Bartlesville	1,000	50,000	51,000	1
Chickasha	0	400	898	0
Enid	3,500	15,000	20,490	1
Oklahoma—Continued.				
McAlester	$500	$379	$879	1
Oklahoma City	1,000	873,800	887,495	2
Okmulgee	0	300	300	0
Sapulpa	0	0	0	0
Seminole	16,300	5,449	22,465	5
Shawnee	0	350	1,250	0
Tulsa	0	20,425	36,038	0
Tennessee:				
Chattanooga	2,950	26,600	47,784	3
Jackson	9,850	450	10,860	3
Kingsport	0	0	0	0
Knoxville	5,520	18,900	29,206	2
Memphis	18,980	5,200	116,220	7
Nashville	2,550	3,021	31,435	5
Texas:				
Abilene	0	0	5,299	0
Amarillo	4,000	30	11,442	1
Austin	18,802	2,980	33,074	13
Beaumont	0	17,547	27,702	0
Big Spring	0	0	3,760	0
Brownwood	0	600	1,850	0
Cleburne	0	0	661	0
Corsicana	0	550	1,250	0
Dallas	24,200	40,715	144,111	12
Denison [1]	0	9,000	14,250	0
El Paso	0	11,662	15,734	0
Fort Worth	28,200	18,400	68,501	13
Galveston	12,350	18,725	43,219	6
Harlingen	2,450	13,775	181,442	2
Houston	131,675	75,859	227,034	83
Lubbock	5,000	800	7,955	1
Palestine	9,200	692	12,682	7
Pampa	0	800	1,475	0
Paris	550	335	3,934	1
San Angelo	1,200	8,500	12,650	1
San Antonio	22,165	20,932	76,424	13
Sherman	4,000	215	7,310	4
Sweetwater	0	0	175	0
Temple	0	0	150	0
Texarkana [1]	0	0	2,092	0
Tyler	11,700	57,633	72,708	8
Wichita Falls	0	2,065	7,345	0
Total	430,679	1,602,773	2,945,378	235

Mountain and Pacific States

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Arizona:				
Phoenix	0	0	$8,133	0
Tucson	$4,750	$1,135	23,127	1
California:				
Alameda	0	2,581	8,681	0
Alhambra	0	7,500	22,361	0
Anaheim	0	18,500	18,500	0
Bakersfield	8,400	910	15,625	5
Berkeley	19,000	5,750	40,244	5
Beverly Hills	143,500	39,900	204,700	15
Burbank	9,500	19,380	31,030	3
Burlingame	40,000	0	44,000	2
Compton	600	18,950	21,014	1
Eureka	0	6,800	9,560	0
Fresno	21,000	13,567	75,573	3
Fullerton	0	0	4,107	0
Gardena	4,650	390	6,720	3
Glendale	36,200	8,040	50,749	9
Huntington Park	2,000	17,610	53,928	1
Inglewood	10,000	800	13,110	5
Long Beach	25,450	23,850	551,280	11
Los Angeles	471,210	1,919,512	2,768,477	144
Modesto	0	0	4,617	0
California—Continued.				
Monrovia	$1,000	$128	$10,274	0
Ontario	0	0	1,700	0
Palo Alto	38,550	7,250	51,575	4
Pasadena	1,575	7,427	55,610	1
Pomona	6,000	6,350	21,233	3
Redlands	0	0	4,476	0
Richmond	5,500	5,775	15,500	2
Riverside	0	5,250	15,236	0
Sacramento	12,025	13,550	100,645	5
Salinas	0	2,035	4,510	0
San Bernardino	3,500	2,160	19,234	1
San Diego	58,400	215,098	409,161	20
San Francisco	185,149	112,921	521,199	54
San Jose	24,370	30,940	64,875	8
San Leandro	3,500	51	4,586	1
San Mateo	27,000	400	30,625	4
Santa Ana	9,500	450	24,698	2
Santa Barbara	11,050	11,325	27,925	4
Santa Cruz	7,350	3,290	14,921	3

[1] Not included in totals.

TABLE 11.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER 1933—Continued

Mountain and Pacific States—Continued

City and State	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
California—Continued.				
Santa Monica	$7,150	$1,725	$16,680	2
Santa Rosa	2,500	475	7,110	1
South Gate	7,000	350	12,613	3
South Pasadena	0	0	3,442	0
Stockton	0	1,950	24,257	0
Vallejo	19,300	3,000	24,555	6
Whittier	0	0	500	0
Colorado:				
Boulder	0	515	1,585	0
Colorado Springs	0	2,585	9,615	0
Denver	66,000	123,035	270,320	13
Fort Collins	0	450	2,615	0
Grand Junction	0	280	1,043	0
Greeley	0	205	2,447	0
Pueblo	500	1,975	9,151	1
Idaho:				
Boise	2,600	15,996	44,376	1
Pocatello	0	500	3,150	0
Montana:				
Anaconda	0	0	0	0
Billings	0	1,075	3,475	0
Butte	0	1,370	3,310	0
Great Falls	0	1,425	3,225	0
Helena	4,100	1,045	5,650	7
Missoula	1,300	9,100	10,500	2
Nevada:				
Reno	1,000	13,800	39,536	1
New Mexico:				
Albuquerque	$2,300	$44,596	$51,451	1
Oregon:				
Astoria	0	4,270	9,998	0
Eugene	4,000	85	8,175	1
Klamath Falls	0	590	5,792	0
Medford	750	0	5,410	1
Portland	58,150	32,975	164,990	15
Salem	3,600	1,365	14,129	2
Utah:				
Ogden	2,500	1,600	4,900	2
Provo	1,000	1,500	2,675	1
Salt Lake City	18,350	1,153	32,601	6
Washington:				
Aberdeen	0	0	1,250	0
Bellingham	2,000	0	5,860	1
Bremerton	13,500	575,000	693,437	9
Hoquiam	0	25	2,050	0
Longview	1,500	620	5,190	1
Olympia	1,500	3,075	7,828	1
Port Angeles	1,000	0	1,500	1
Seattle	20,950	10,235	117,267	12
Spokane	10,535	121,567	144,546	4
Tacoma	9,600	7,150	27,150	3
Walla Walla	0	275	3,449	0
Wenatchee	0	50	165	0
Wyoming:				
Cheyenne	0	845	2,081	0
Total	1,453,414	3,517,407	7,184,568	418

Hawaii

City	New residential buildings	New nonresidential buildings	Total (including repairs)	Families provided for
Honolulu	$64,855	$51,092	$150,388	34

Building Subsidy and Building Activity in New Zealand

A COMMUNICATION from Walter W. Orebaugh, American vice consul in Wellington, New Zealand, dated September 15, 1933, states that there was a marked revival of building activity in that country during the 3 months, June, July, and August, due in part to the impetus given to the industry by the introduction of a Government subsidy in aid of wages for building labor, in part to the public works program, and in part to the general improvement in business.

Government Subsidy to the Building Industry

A PLAN, known as the "No. 10 Scheme", for a subsidy to encourage building was adopted in July 1932, but it contained several restrictive provisions which interfered with its effectiveness, and it was dropped after a period of 6 months. On June 1, 1933, it was reintroduced on a more liberal basis.

The No. 10 scheme, as amended, placed no specific restriction as to the class of new buildings, alterations, additions to, or renovations of buildings upon which a wages subsidy would be granted. On approved works a wages subsidy of 33⅓ percent was paid from the unemployment fund, a fund constituted by a uniform

levy of 5 percent on practically all classes of salary and wages earned by persons resident in New Zealand. In the case of the erection of new dwelling houses not exceeding £650 whole building cost, the wages subsidy was at the rate of 50 percent on the total wages.

This led to an immediate increase of building activity, and on September 6 the Government announced that as from September 12 no further applications for the subsidy would be entertained. There was a rush to get in applications before this date was reached, and though official statistics covering the period during which the scheme was in operation are not yet available, it is estimated that the total number of applications will be found to exceed 6,000, involving an expenditure of approximately £3,000,000.

That the object in view has been achieved by the action of the Government in reintroducing the subsidy scheme is evident from the above figure which corresponds more than favorably with the figure for the same period in 1926, the year when building activity in New Zealand reached its highest pitch.

It is considered noteworthy that the scheme has caused a distinct increase in home building. Besides new homes, there has been considerable activity in additions and renovations. Only a small fraction of this work would have been undertaken at the present time if the subsidy had not been a stimulating factor.

Public Works Program

ANOTHER stimulus to building activity was the announcement made on June 30, 1933, that the Government proposed to embark on a public works program involving an expenditure of approximately £920,000 as one means of alleviating the unfavorable economic conditions, including the widespread and increasing unemployment.

The program includes the construction of a new terminal railway station at Wellington to replace the old one which has been an eyesore to the city for many years, the electrification of that portion of the Wellington-Auckland main-line railway between Wellington and Packakariki, a town situated at a distance of 27 miles northeast of Wellington, and the erection of a new post-office building at Dunedin.

In making this announcement the acting Prime Minister, the Right Honorable J. G. Coates, said that the present favorable price level upon which constructional costs can now be computed made it desirable that the Government initiate its program at this time.

New Provisions for Public Subsidies for Building in Germany [1]

AS A part of its program to combat unemployment the German Government has since September 1932 granted subsidies totaling 700 million marks ($166,600,000) [2] to the building trades for repair, extension, partitioning, and remodeling work, in regard to which the Ministry of Labor recently stated that "the granting of Government subsidies for repair and partitioning has already proven itself to be a particularly suitable method of creating work."

The latest appropriation for building subsidies—500 million marks ($119,000,000)—was made September 21 and on October 9 regulations regarding the granting of individual subsidies from this fund were announced. These regulations also govern any future subsidies granted from unexpended balances of previous subsidies. The new regulations are much more liberal than the old and permit subsidies to owners or tenants for almost every kind of improvement to built-up property.

[1] Report of C. W. Gray, American Vice Consul at Berlin, Oct. 17, 1933.
[2] Conversions into United States currency on basis of mark at par=23.8 cents.

In the case of repairs and extensions the subsidy amounts to 20 percent of the cost of the work, but the total cost of each job must be at least 100 marks ($23.80). For partitioning and remodeling the subsidy is 50 percent of the total cost, but the maximum subsidy which can be granted is limited to 1,000 marks ($238).

In addition, the Government will issue to the person to whom the subsidy is granted 6 interest coupons, each of which is equal to 4 percent of the amount spent by such persons (exclusive of the subsidy itself) for repair, extension, partitioning, or remodeling work. These coupons will be redeemed in cash—one every year—during the years 1934 to 1939.

The following examples show to what extent the subsidy is granted: A person who spends 1,000 marks for repairs or extension to his property receives a subsidy of 200 marks (20 percent of the cost). He must provide the other 800 marks himself. However, he receives 6 interest coupons, each good for 32 marks (4 percent of 800 marks) which amount to a further subsidy of 192 marks. His total subsidy is, therefore, 392 marks (200 marks in cash plus 192 marks in coupons) or 39 percent of the total cost of the 1,000-mark job. If a person spends 2,000 marks for the partitioning or remodeling of a building, the cash subsidy amounts to 1,000 marks (50 percent of the total cost), leaving 1,000 marks which he himself must provide. He receives in addition 6 interest coupons, each good for 40 marks (4 percent of 1,000 marks), making a further subsidy of 240 marks. The total subsidy, therefore, is 1,240 marks (1,000 marks in cash plus 240 marks in coupons) or 62 percent of the entire cost of the work.

Subsidies can be granted to the owner, tenant, renter, or other proprietor of any kind of building. There are only two exceptions: (1) Subsidies cannot be granted in the case of buildings owned or administered by the Federal or State Government; and (2) subsidies can be granted for buildings owned or administered by local government only when such government contributes its share from funds not provided for in the regular budget.

Work for which subsidies are granted under the new regulations must be ended by March 31, 1934, and they are listed as follows: Improvements (both external and internal) of all kinds, polishing, painting, papering, and general beautifying; repairs to or renewals of roof gutters, rain pipes, or the building of new roofs; renewals of or improvements to windows, doors, floors, ceilings, stairways, and bannisters; renewals of and improvements to lighting, heating, gas, and water fixtures; repairs to fences and the tiling of courtyards.

Extensions include work which adds to the permanent worth of buildings, such as electric wiring, the installation of heating plants, ventilating systems, bathrooms, closets, elevators, and hooking up with sewerage mains. The building of extensions to fences and the laying of additional tiling in courtyards also come under this heading.

The general rules governing partitioning and remodeling work are as follows: In the case of partitioning subsidies can be granted only if two or more apartments are created out of one. On remodeling work subsidies can be granted only if one or more apartments are made from the building or room remodeled. The addition of another floor to a building is considered as remodeling. Each newly created apartment must be complete in itself with its own rooms, kitchen, and, whenever possible, private entrance. Subsidies can be given also when only a part of an apartment is created, such as a cellar for protection against air raids.

WAGES AND HOURS OF LABOR

Hours and Earnings in Foundries and Machine Shops, 1933

THE Bureau of Labor Statistics of the United States Department of Labor through its agents collected, from pay rolls and other records, figures covering days and hours worked and the earnings received by 19,763 wage earners of 364 representative foundries and by 41,960 wage earners of 492 machine shops in the United States; these figures are mainly for a representative pay-roll period in April, May, or June 1933. Table 1 presents summary data for 1933, together with similar data for each of the other years in which studies of these industries have been made by the Bureau.[1] Details of the 1933 study will be published later in bulletin form.

Table 1 shows that the foundry workers earned an average of 48.2 cents per hour and $14.25 in 1 week in 1933, as compared with 60 cents and $20.06 in 1931 and 62.4 cents and $30.39 in 1929. In 1933 their hourly earnings were 19.7 percent less than in 1931 and 22.8 percent less than in 1929. Machine-shop employees earned an average of 54 cents per hour and $18.71 in 1 week in 1933, 63.4 cents and $24.22 in 1931, 63.8 cents per hour and $32.06 in 1 week in 1929. In 1933 their hourly earnings were 14.8 percent less than in 1931 and 15.4 percent less than in 1929.

Hours actually worked in a representative week by the wage earners in the foundries averaged 29.6 in 1933, as compared with 33.5 in 1931 and 48.7 in 1929. They worked 59.9 percent of full time in 1933, 66.6 percent in 1931, and 95.5 percent in 1929; there was, in other words, 40.1 percent of short time or lost time in 1933, as against 33.4 percent in 1931 and only 4.5 percent in 1929. The wage earners in machine shops actually worked an average of 34.6 hours (71.3 percent of full time) in 1933, 38.2 hours (76.7 percent) in 1931, and 50.3 hours (exactly full time) in 1929; there was, thus, 28.7 percent of lost time in machine shops in 1933, 23.3 percent in 1931, and no short time in 1929.

Full-time hours per week of wage earners in foundries averaged 49.4 in 1933, 50.3 in 1931, and 51 in 1929; and in machine shops they averaged 48.5 hours in 1933, 49.8 in 1931, and 50.3 in 1929.

The full-time earnings per week of the wage earners in the foundries studied averaged $23.81 in 1933, $30.18 in 1931, and $31.82 in 1929, while those in machine shops averaged $26.19 in 1933, $31.57 in 1931, and $32.09 in 1929. These are the average amounts that would have been earned had each wage earner worked full time in the week covered in the study, at the same average rate per hour as was earned in the week.

[1] For details for each year studied prior to 1933, see Bureau of Labor Statistics Buls. Nos. 362, 422, 471, 522, and 570.

Table 1 also shows index numbers of average full-time hours per week, average earnings per hour, and average full-time earnings per week, using the 1923 average as the base or 100.

TABLE 1.—AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, WITH INDEX NUMBERS THEREOF, FOR ALL WAGE EARNERS, BY INDUSTRY AND YEAR

Industry and year	Number of establishments	Number of wage earners	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week	Index numbers (1923=100) of—		
				Average number	Percent of full time				Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
Foundries:											
1923	351	32,166	52.4	(1)	(1)	$0.558	$29.24	(1)	100.0	100.0	100.0
1925	413	40,393	51.5	(1)	(1)	.610	31.42	(1)	98.3	109.3	107.5
1927	417	38,943	51.1	46.6	91.2	.624	31.89	$29.04	97.5	111.8	109.1
1929	399	40,391	51.0	48.7	95.5	.624	31.82	30.39	97.3	111.8	108.8
1931	388	28,699	50.3	33.5	66.6	.600	30.18	20.06	96.0	107.5	103.2
1933	364	19,763	49.4	29.6	59.9	.482	23.81	14.25	94.3	86.4	81.4
Machine shops:											
1923	429	58,914	50.8	(1)	(1)	.559	28.40	(1)	100.0	100.0	100.0
1925	511	86,274	50.4	(1)	(1)	.602	30.34	(1)	99.2	107.7	106.8
1927	526	86,779	50.1	48.2	96.2	.625	31.31	30.15	98.6	111.8	110.2
1929	508	91,491	50.3	50.3	100.0	.638	32.09	32.06	99.0	114.1	113.0
1931	512	65,938	49.8	38.2	76.7	.634	31.57	24.22	98.0	113.4	111.2
1933	492	41,960	48.5	34.6	71.3	.540	26.19	18.71	95.5	96.6	92.2

[1] Data not available.

Average Days, Hours, and Earnings, 1931 and 1933, by Occupation and Sex

TABLE 2 shows the average number of days on which wage earners worked in 1 week, the average full-time and actual hours and earnings in 1 week, the average earnings per hour, and the percent of full time actually worked in a representative week in 1931 and 1933. The averages are for all wage earners of each sex found in each of the important occupations in the foundries and in the machine shops that were covered in the study and also for the group designated in the table as "other employees", which includes wage earners in other occupations.

Averages in the table are shown for males in all and for females in 3 of the 12 important occupations in foundries, and for males in all and for females in 16 of the 27 important occupations in machine shops, and also for the group of "other employees" of each sex in each industry.

Average hours actually worked *in foundries* in 1 week by males ranged in 1931, by occupations, from a low of 29.6 for molders, hand, floor, to a high of 39.8 for patternmakers, and in 1933 from 25.7 to 38.9 for the same occupations. Those worked by females ranged in 1931 from 20.8 for laborers to 31.2 for coremakers and in 1933 from 16.9 to 31.5 for the same occupations.

Average earnings per hour of males ranged in 1931, by occupations, from 46 cents for laborers to 83.4 cents for patternmakers, and in 1933 from 37.8 cents to 65.2 cents for the same occupations. Those

of females ranged in 1931 from 37.7 cents for laborers to 49.6 cents for chippers and rough grinders and in 1933 from 29.6 cents for laborers to 32.4 cents for coremakers.

Average actual earnings of males in 1 week in 1931 ranged, by occupations, from $15.43 for laborers to $33.19 for patternmakers and in 1933 from $10.50 to $25.36 for the same occupations. Those of females ranged in 1931 from $7.83 for laborers to $13.42 for coremakers and in 1933 from $5 to $10.22 for these same occupations.

Average hours actually worked *in machine shops* in 1 week by males ranged, in 1931, by occupations, from a low of 29.6 for hammersmiths, to a high of 41.9 for toolmakers and in 1933 from 29.3 to 36.8 for the same occupations. Those worked by females ranged in 1931 from 13 for engine-lathe operators to 56.3 for laborers and in 1933 from 30.1 for grinding-machine operators to 43 for screw-machine operators, hand.

Average earnings per hour of males ranged, by occupations, in 1931 from 45.5 cents for laborers to 81.2 cents for patternmakers and in 1933 from 37.9 cents to 67.1 cents for the same occupations. Those of females ranged in 1931 from 32.6 cents for screw-machine operators, semiautomatic, to 52.7 cents for turret-lathe operators and in 1933 from 20.4 cents for screw-machine operators, hand, to 54.1 cents for turret-lathe operators.

Average actual earnings of males in 1 week in 1931 ranged, by occupations, from $17.56 for laborers to $33.22 for patternmakers and in 1933 from $12.52 for laborers to $23.62 for toolmakers. Those of females ranged in 1931 from $6.71 for engine-lathe operators, to $22 for laborers and in 1933 from $8.79 for screw-machine operators, hand, to $18.32 for turret-lathe operators.

Average earnings per hour and average actual earnings in 1 week of males and of females in each occupation in foundries and in machine shops (except males in the group of "other employees" in machine shops and female grinding-machine operators, engine-lathe operators, turret-lathe operators, and polishers and buffers) were less in 1933 than in 1931. Males in the group of "other employees" in machine shops earned an average of 50.6 cents per hour and $19.82 in 1 week in 1931 and 55 cents per hour and $20.05 in 1 week in 1933. Female grinding-machine operators earned an average of 44.3 cents per hour in 1931 and 51.9 cents per hour in 1933. Female engine-lathe operators earned an average of 51.6 cents per hour and $6.71 in 1 week in 1931 and 52.3 cents per hour and $17.44 in 1933. They actually worked an average of 13 hours or 26 percent of full time in 1931 and 33.3 hours or 72.4 percent of full time in 1933. Female turret-lathe operators earned an average of 52.7 cents per hour and $8.52 in 1 week in 1931 and 54.1 cents per hour and $18.32 in 1 week in 1933. They actually worked an average of 16.2 hours or 32.4 percent of full time in 1931 and an average of 33.8 hours or 75.1 percent of full time in 1933. Female polishers and buffers earned an average of 37.7 cents per hour and $13.08 in 1 week in 1931 and 40 cents per hour and $14.07 in 1 week in 1933.

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TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY INDUSTRY, OCCUPATION, AND SEX

Foundries

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Chippers and rough grinders:										
Male	1931	367	3,048	4.1	50.6	33.1	65.4	$0.509	$25.76	$16.86
	1933	334	2,150	3.7	49.4	29.8	60.3	.396	19.56	11.78
Female	1931	1	12	3.2	50.0	21.5	43.0	.496	24.80	10.65
Coremakers:										
Male	1931	374	2,253	3.9	50.0	31.2	62.4	.706	35.30	22.05
	1933	331	1,622	3.7	49.0	29.8	60.8	.550	26.95	16.41
Female	1931	34	179	4.0	48.6	31.2	64.2	.430	20.90	13.42
	1933	30	118	3.9	48.1	31.5	65.5	.324	15.58	10.22
Crane operators, male	1931	217	768	4.3	50.8	37.6	74.0	.552	28.04	20.74
	1933	177	569	3.5	49.5	30.5	61.6	.440	21.78	13.40
Cupola tenders, male	1931	344	430	4.0	50.8	34.5	67.9	.597	30.33	20.59
	1933	306	375	3.4	49.9	28.9	57.9	.470	23.45	13.60
Laborers:										
Male	1931	366	6,907	4.0	50.8	33.6	66.1	.460	23.37	15.43
	1933	330	4,134	3.4	50.0	27.8	55.6	.378	18.90	10.50
Female	1931	5	10	2.9	47.8	20.8	43.5	.377	18.02	7.83
	1933	4	16	2.8	50.6	16.9	33.4	.296	14.98	5.00
Molders (hand), bench, male	1931	300	1,593	3.7	50.2	30.2	60.2	.727	36.50	21.96
	1933	273	1,361	3.3	49.3	27.2	55.2	.550	27.12	14.98
Molders (hand), floor, male	1931	376	3,752	3.6	50.0	29.6	59.2	.782	39.10	23.14
	1933	349	2,556	3.2	48.9	25.7	52.6	.612	29.93	15.70
Molders (machine), male	1931	215	2,538	3.7	50.0	30.4	60.8	.661	33.05	20.16
	1933	190	1,840	3.5	49.2	28.5	57.9	.508	24.99	14.50
Molders' helpers, floor, male	1931	231	1,234	3.9	50.0	33.6	67.2	.492	24.60	16.59
	1933	182	756	3.6	48.7	29.8	61.2	.382	18.60	11.40
Patternmakers, male	1931	194	1,107	4.9	49.3	39.8	80.7	.834	41.12	33.06
	1933	182	708	4.7	49.2	38.9	79.1	.652	32.68	25.36
Rough carpenters, male	1931	237	424	4.5	50.1	37.4	74.4	.599	30.13	22.42
	1933	169	232	3.9	49.3	31.0	63.0	.406	22.18	13.98
Sand blasters, male	1931	157	266	4.7	50.0	34.7	69.9	.570	28.52	19.93
	1933	152	238	4.6	49.6	30.8	61.8	.413	20.66	12.74
Other employees:										
Male	1931	358	4,149				74	.606		
	1933	316	3,078				73	.491		
Female	1931	6	20				72	.345		
	1933	4	10				77.9	.228	10.65	8.30
All occupations:										
Male	1931	388	28,469	4.0			66.6	.601	30.23	20.13
	1933	364	19,619	3.6			59.9	.483	23.86	14.28
Female	1931	34	250	3.9			60.4	.422	20.15	12.40
	1933	31	144	3.9		23.2	62.5	.314	15.17	9.51
Male and female	1931	388	28,719	4.0	49.3	29.5	66.0	.600	29.18	20.06
	1933	364	19,763	3.6	48.4	19.3	61.9	.482	23.81	14.25

Machine shops

Assemblers:										
Male	1931	360	5,446	4.6	49.9	37.9	76.0	$0.656	$32.73	$24.84
	1933	322	3,647	4.4	48.3	34.0	70.4	.538	25.99	18.31
Female	1931	19	145	4.7	50.7	37.6	74.2	.426	21.60	16.01
	1933	18	197	4.5	47.6	31.9	67.0	.359	17.09	11.48
Blacksmiths, male	1931	373	698	4.5	50.5	36.5	72.3	.728	36.76	26.57
	1933	281	395	3.9	49.0	30.0	61.2	.601	29.45	18.02
Blacksmiths' helpers, male	1931	228	481	4.5	49.8	36.5	73.3	.533	26.54	19.47
	1933	129	217	3.8	48.8	30.4	62.3	.433	21.13	13.16
Boring-mill operators, male	1931	337	1,722	4.5	50.0	37.4	74.8	.733	36.65	27.39
	1933	296	1,020	4.2	49.1	33.5	68.2	.596	29.26	19.98
Crane operators:										
Male	1931	221	780	4.7	50.4	39.7	78.8	.537	27.06	21.35
	1933	136	401	4.3	49.8	35.0	70.3	.444	22.11	15.52
Female	1931	2	2	5.5	47.5	46.0	96.8	.422	20.05	19.38
Craters and packers:										
Male	1931	253	1,218	4.7	50.1	39.1	78.0	.540	27.05	21.10
	1933	191	824	4.4	48.6	35.0	72.0	.437	21.24	15.31
Female	1931	9	32	4.4	49.7	34.1	68.6	.343	17.05	11.71
	1933	6	22	4.8	47.8	37.9	79.3	.281	13.43	10.66

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY INDUSTRY, OCCUPATION, AND SEX—Continued

Machine shops—Continued

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Drill-press operators:										
Male	1931	415	3,139	4.4	49.8	36.0	72.3	$0.612	$30.48	$22.06
	1933	340	1,974	4.3	48.5	33.7	69.5	.514	24.93	17.30
Female	1931	14	47	4.5	49.3	36.1	73.2	.446	21.99	16.09
	1933	10	65	4.7	46.4	38.2	82.3	.419	19.44	15.99
Fitters and bench hands:										
Male	1931	341	5,447	4.6	49.5	38.0	76.8	.666	32.97	25.28
	1933	290	2,244	4.3	48.5	33.7	69.5	.562	27.26	18.96
Female	1931	10	45	4.3	50.4	37.1	73.6	.411	20.71	15.23
	1933	8	62	4.4	48.0	32.9	68.5	.326	15.65	10.72
Grinding-machine operators:										
Male	1931	290	2,088	4.4	50.2	36.9	73.5	.669	33.58	24.69
	1933	234	1,575	4.3	47.9	34.2	71.4	.557	26.68	19.04
Female	1931	2	3	4.7	48.0	39.3	81.9	.443	21.26	17.43
	1933	4	6	4.2	46.3	30.1	65.0	.519	24.03	15.60
Hammersmiths, male	1931	50	134	3.6	49.4	29.6	59.9	.776	38.33	22.94
	1933	41	116	3.7	49.2	29.3	59.6	.614	30.21	18.00
Helpers, not otherwise specified, male	1931	278	2,262	4.5	50.6	37.1	73.3	.481	24.34	17.84
	1933	214	960	4.3	48.8	35.0	71.7	.399	19.47	13.94
Laborers:										
Male	1931	426	5,173	4.6	50.3	38.6	76.7	.455	22.89	17.56
	1933	345	2,553	4.2	48.8	33.0	67.6	.379	18.50	12.52
Female	1931	1	4	6.0	49.5	56.3	113.7	.391	19.35	22.00
	1933	7	20	5.0	49.1	39.3	80.0	.309	15.17	12.13
Lathe operators, engine:										
Male	1931	407	3,551	4.5	50.0	36.8	73.6	.706	35.30	25.97
	1933	357	2,274	4.2	48.8	33.5	68.6	.578	28.21	19.33
Female	1931	1	3	2.0	50.0	13.0	26.0	.516	25.80	6.71
	1933	2	3	4.7	46.0	33.3	72.4	.523	24.06	17.44
Lathe operators, turret:										
Male	1931	333	2,467	4.4	49.8	35.6	71.5	.672	33.47	23.92
	1933	288	1,702	4.2	48.5	33.3	68.7	.559	27.11	18.61
Female	1931	2	3	2.3	50.0	16.2	32.4	.527	26.35	8.52
	1933	1	3	4.0	45.0	33.8	75.1	.541	24.35	18.32
Machinists, male	1931	374	2,575	4.8	49.0	40.4	82.4	.733	35.92	29.62
	1933	342	1,988	4.6	48.3	36.7	76.0	.606	29.27	22.27
Machinists' and toolmakers' helpers, male	1931	210	797	4.8	49.3	38.9	78.9	.513	25.29	19.98
	1933	161	482	4.5	48.5	35.5	73.2	.393	19.06	13.96
Milling-machine operators:										
Male	1931	331	2,246	4.6	49.3	37.8	76.6	.685	33.77	25.85
	1933	285	1,557	4.3	47.9	33.7	70.4	.576	27.59	19.43
Female	1931	8	18	4.4	48.9	38.1	77.9	.492	24.06	18.74
	1933	5	9	4.7	47.2	36.2	76.7	.446	21.05	16.12
Patternmakers, male	1931	282	1,431	4.9	50.1	40.9	81.6	.812	40.68	33.22
	1933	219	695	4.2	48.4	33.2	68.6	.671	32.48	22.29
Planer operators, male	1931	315	1,168	4.5	50.1	37.3	74.5	.738	36.97	27.53
	1933	242	525	4.1	48.7	33.1	68.0	.608	29.61	20.15
Polishers and buffers:										
Male	1931	101	379	4.1	49.4	33.5	67.8	.656	32.41	21.96
	1933	75	297	4.2	47.7	34.3	71.9	.483	23.04	16.60
Female	1931	4	6	4.2	50.1	34.7	69.3	.377	18.89	13.08
	1933	3	3	4.3	48.5	35.2	72.6	.400	19.40	14.07
Screw-machine operators (automatic), male	1931	122	486	4.4	49.5	37.1	74.9	.694	34.35	25.76
	1933	95	319	4.6	47.6	36.3	76.3	.576	27.42	20.90
Screw-machine operators (hand):										
Male	1931	128	640	4.4	49.9	36.4	72.9	.654	32.63	23.79
	1933	91	361	4.3	48.0	35.6	74.2	.493	23.66	17.61
Female	1931	2	37	5.0	49.5	40.9	82.6	.356	17.62	14.57
	1933	2	34	5.3	46.8	43.0	91.9	.204	9.55	8.79
Screw-machine operators (semi-automatic):										
Male	1931	37	108	4.9	48.5	39.5	81.4	.705	34.19	27.87
	1933	45	163	4.3	48.5	35.6	73.4	.523	25.37	18.58
Female	1931	2	9	5.3	49.5	43.2	87.3	.326	16.14	14.10

TABLE 2.—AVERAGE DAYS, HOURS, AND EARNINGS, 1931 AND 1933, BY INDUSTRY, OCCUPATION, AND SEX—Continued

Machine shops—Continued

Occupation and sex	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Sheet and plate metal machine operators:										
Male	1931	164	1,072	4.6	50.2	36.8	73.3	$0.619	$31.07	$22.79
	1933	135	854	4.4	48.6	34.1	70.2	.505	24.54	17.21
Female	1931	8	35	4.4	49.0	37.3	76.1	.386	18.91	14.39
	1933	11	46	4.6	48.8	35.5	72.7	.358	17.47	12.72
Toolmakers, male	1931	355	2,386	5.0	49.4	41.9	84.8	.758	37.45	31.78
	1933	279	1,535	4.6	48.6	36.8	75.7	.643	31.25	23.62
Other precision-machine operators:										
Male	1931	308	1,490	4.3	50.0	35.7	71.4	.657	32.85	23.46
	1933	207	775	4.2	49.0	33.1	67.6	.534	26.17	17.69
Female	1931	6	77	4.8	48.5	38.6	79.6	.399	19.35	15.37
	1933	9	47	3.9	46.8	31.0	66.2	.341	15.96	10.58
Other skilled employees:										
Male	1931	478	9,287	4.8	49.9	39.8	79.8	.695	34.68	27.63
	1933	422	6,314	4.5	48.5	35.6	73.4	.579	28.08	20.60
Female	1931	26	345	4.8	49.3	40.5	82.2	.391	19.28	15.84
	1933	29	294	4.4	47.1	33.9	72.0	.337	15.87	11.43
Other employees:										
Male	1931	465	6,250	4.8	50.1	39.2	78.2	.506	25.35	19.82
	1933	440	5,236	4.6	48.5	36.4	75.1	.550	26.68	20.05
Female	1931	25	206	4.9	47.9	39.0	81.4	.439	21.03	17.13
	1933	19	146	4.5	47.5	33.7	70.9	.384	18.24	12.96
All occupations:										
Male	1931	512	64,921	4.6	49.8	38.2	76.7	.637	31.72	24.36
	1933	492	41,003	4.4	48.5	34.6	71.3	.545	26.43	18.87
Female	1931	49	1,017	4.7	49.2	38.8	78.9	.408	20.07	15.85
	1933	48	957	4.5	47.4	34.2	72.2	.351	16.64	11.98
Male and female	1931	512	65,938	4.6	49.8	38.2	76.7	.634	31.57	24.22
	1933	492	41,960	4.4	48.5	34.6	71.3	.540	26.19	18.71

Days, Hours, and Earnings, 1931 and 1933, by Sex and State

TABLE 3 shows average days, hours, and earnings, and the percent of full time worked in 1 week. The averages are, by States, for the wage earners of each sex and of both sexes combined who were included in the study of foundries and of machine shops in each State in 1931 and 1933.

Foundries.—Average full-time hours per week of males in foundries, in the various States included in the study, ranged in 1931 from a low of 45.4 to a high of 56, and in 1933 ranged from 39.1 to 55.2. Those for females ranged in 1931 from 44.5 to 51.4 and in 1933 from 44.6 to 54. Averages of males in all States combined decreased from 50.3 in 1931 to 49.4 in 1933, while those of females decreased from 48.7 in 1931 to 48.3 in 1933.

Average earnings per hour of males in 1931 ranged, in the various States, from 40.1 to 74.3 cents and in 1933 from 32.2 to 62.3 cents. Averages of females in 1931 ranged from 31.8 to 47.2 cents and in 1933 from 27.1 to 42.4 cents. Averages for each State where shown for both years were less in 1933 than in 1931. Averages of males in all States combined decreased from 60.1 cents per hour in 1931 to 48.3 cents in 1933 and those of females decreased from 42.2 cents in 1931 to 31.4 cents in 1933.

Average actual earnings of males in 1 week ranged, by States, from $14.35 to $27.33 in 1931 and from $8.93 to $22.07 in 1933. Those of females ranged from $9.39 to $15.38 in 1931 and from $6.35 to $15.96 in 1933. Averages for each State, except for females in Michigan, where shown for both years, were less in 1933 than in 1931. Female foundry workers in Michigan earned an average of $9.39 in 1931 and $11.38 in 1933. Averages of males in all States were $20.13 in 1931 and $14.28 in 1933, and those of females were $12.40 in 1931 and $9.51 in 1933.

Machine shops.—Average full-time hours per week of males in machine shops, all States combined, decreased from 49.8 in 1931 to 48.5 in 1933 and those of females decreased from 49.2 in 1931 to 47.4 in 1933.

Average hours actually worked in 1 week by males in all States combined fell from 38.2 (76.7 percent of full time) in 1931 to 34.6 hours per week (71.3 percent of full time) in 1933, and those of females decreased from 38.8 (78.9 percent of full time) in 1931 to 34.2 (72.2 percent of full time) in 1933.

From 1931 to 1933 average earnings per hour of males in all States combined decreased from 63.7 to 54.5 cents and those of females decreased from 40.8 to 35.1 cents. In the same period average full-time earnings of males in 1 week, all States combined, decreased from $31.72 to $26.43 and those of females decreased from $20.07 to $16.64. Average earnings per hour and actual earnings in 1 week for each State (except for males in New Hampshire), where shown for both years, were less in 1933 than in 1931. Males in New Hampshire earned an average of 60 cents per hour in 1931 and 60.8 cents in 1933. Average actual earnings of males in 1 week, all States combined, decreased from $24.36 in 1931 to $18.87 in 1933 and those of females decreased from $15.85 in 1931 to $11.98 in 1933.

The wage data in this report for a few large foundries and machine shops include only a representative portion of the total number of wage earners of such establishments, as the inclusion of the entire number would have given them undue weight, and might have impaired the representative character of the averages for the States in which the establishments are located.

Table 3 shows the average days, hours and earnings in 1931 and 1933, by sex and State.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PERCENT OF FULL TIME WORKED, 1931 AND 1933, BY INDUSTRY, SEX, AND STATE

Foundries

Sex and State	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week: Average number	Hours actually worked in 1 week: Percent of full time	Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
Males										
Alabama	1931	4	177	4.7	53.8	43.2	80.3	$0.423	$22.76	$18.28
	1933	4	154	5.4	50.0	46.9	93.8	.322	16.10	15.08
California	1931	19	728	4.6	45.4	34.7	76.4	.743	33.73	25.81
	1933	17	508	4.5	43.7	35.4	81.0	.623	27.23	22.07
Colorado	1931	3	177	5.2	48.0	45.6	95.0	.600	28.80	27.33
	1933	4	173	3.9	48.0	30.5	63.5	.500	24.00	15.25
Connecticut	1931	18	1,154	3.4	50.7	28.5	56.2	.589	29.86	16.77
	1933	18	799	2.3	51.4	19.3	37.5	.462	23.75	8.93
Georgia	1931	9	305	4.5	50.9	36.0	70.7	.403	20.51	14.52
	1933	7	237	3.6	50.6	30.8	60.9	.341	17.25	10.48
Illinois	1931	30	3,097	3.9	49.6	30.9	62.3	.647	32.09	19.96
	1933	27	2,117	3.9	47.8	32.1	67.2	.492	23.52	15.79
Indiana	1931	17	1,538	3.8	51.1	29.7	58.1	.559	28.56	16.62
	1933	18	1,069	3.3	51.7	25.4	49.1	.422	21.82	10.72
Iowa	1931	9	561	4.3	53.6	35.0	65.3	.600	32.16	20.86
	1933	8	300	4.1	50.7	35.6	70.2	.506	25.65	18.03
Kansas	1931	10	276	4.0	56.0	37.1	66.3	.455	25.48	16.86
	1933	9	160	4.2	55.2	36.8	66.7	.379	20.92	13.95
Kentucky	1931	5	120	3.6	51.2	30.3	59.2	.521	26.68	15.76
	1933	4	97	4.3	51.2	37.6	73.4	.374	19.15	14.03
Louisiana	1931	5	178	4.5	52.4	35.8	68.3	.401	21.01	14.35
	1933	5	124	3.6	48.4	27.9	57.6	.371	17.96	10.35
Maine	1931	4	239	4.8	48.3	41.4	85.7	.558	26.95	23.08
	1933	4	199	3.9	52.2	35.3	67.6	.414	21.61	14.58
Maryland	1931	7	397	4.6	49.9	40.6	81.4	.543	27.10	22.06
	1933	7	245	3.4	48.0	28.1	58.5	.462	22.18	12.98
Massachusetts	1931	21	1,320	4.2	47.2	33.8	71.6	.690	32.57	23.31
	1933	19	870	3.8	46.7	30.1	64.5	.617	28.81	18.59
Michigan	1931	33	1,916	3.9	52.1	33.3	63.9	.582	30.32	19.37
	1933	32	1,484	3.7	50.4	30.0	59.5	.446	22.48	13.40
Minnesota	1931	6	466	3.9	51.2	32.9	64.3	.589	30.16	19.38
	1933	5	251	3.6	46.4	28.4	61.2	.519	24.08	14.77
Missouri	1931	14	460	4.2	51.9	35.3	68.0	.577	29.95	20.36
	1933	13	292	3.9	51.8	33.0	63.7	.445	23.05	14.67
New Hampshire	1931	5	127	4.5	50.7	37.8	74.6	.567	28.75	21.43
	1933	5	104	2.7	47.1	22.1	46.9	.526	24.77	11.62
New Jersey	1931	16	1,668	4.2	48.9	35.1	71.8	.608	29.73	21.30
	1933	15	1,056	3.5	49.2	29.9	60.8	.472	23.22	14.11
New York	1931	26	2,828	3.9	49.2	33.2	67.5	.599	29.47	19.87
	1933	27	1,730	3.5	49.2	30.3	61.6	.502	24.70	15.24
Ohio	1931	44	3,506	4.1	51.0	34.7	68.0	.610	31.11	21.19
	1933	37	2,076	3.5	51.3	30.6	59.6	.459	23.55	14.05
Oregon	1931	6	163	4.8	47.2	36.5	77.3	.675	31.86	24.63
	1933	5	106	4.4	39.1	29.3	74.9	.595	23.26	17.41
Pennsylvania	1931	39	3,619	3.8	51.1	32.5	63.6	.606	30.97	19.70
	1933	38	3,190	3.4	48.8	28.9	59.2	.494	24.11	14.30
Rhode Island	1931	7	692	3.8	50.4	31.7	62.9	.597	30.09	18.93
	1933	6	407	4.1	50.7	33.1	65.3	.557	28.24	18.43
Tennessee	1931	6	253	4.3	49.0	33.4	68.2	.471	23.08	15.74
	1933	5	191	5.1	49.5	31.8	64.2	.454	22.47	14.42
Texas	1931	6	151	4.5	49.0	36.7	74.9	.515	25.24	18.94
	1933	7	123	3.6	49.6	27.7	55.8	.402	19.94	11.15
Washington	1931	6	235	4.8	47.9	37.8	78.9	.698	33.43	26.43
	1933	5	101	3.8	48.0	28.6	59.6	.551	26.45	15.76
Wisconsin	1931	13	2,118	4.3	51.5	35.1	68.2	.584	30.08	20.49
	1933	13	1,456	3.4	50.5	24.4	48.3	.472	23.84	11.50
Total	1931	388	28,469	4.0	50.3	33.5	66.6	.601	30.23	20.13
	1933	364	19,619	3.6	49.4	29.6	59.9	.483	23.86	14.28
Females										
Connecticut	1931	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
	1933	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Illinois	1931	4	16	3.4	50.3	24.7	49.1	.409	20.57	10.09
	1933	4	10	3.3	46.4	27.8	59.9	.348	16.15	9.69
Indiana	1931	2	46	3.5	49.7	22.7	45.7	.472	23.46	10.70
	1933	3	25	3.3	50.9	21.4	42.0	.296	15.07	6.35
Iowa	1933	1	4	5.0	45.0	45.0	100.0	.314	14.13	14.14
Kentucky	1931	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
	1933	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]

[1] Fewer than 3 employees; therefore data included only in total.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PERCENT OF FULL TIME WORKED, 1931 AND 1933, BY INDUSTRY, SEX, AND STATE—Continued

Foundries—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Females—Continued										
Massachusetts	1933	2	4	5.0	46.5	37.7	81.1	$0.424	$19.72	$15.96
Michigan	1931	5	20	3.0	51.4	20.9	40.7	.448	23.03	9.39
	1933	3	7	4.6	52.9	39.2	74.1	.290	15.34	11.38
New Jersey	1931	5	31	3.2	48.2	25.7	53.3	.380	18.32	9.81
	1933	4	25	4.1	48.8	34.7	71.1	.271	13.22	9.40
New York	1931	6	54	4.6	46.9	38.0	81.0	.403	18.90	15.33
	1933	6	31	4.2	46.6	32.4	69.5	.334	15.56	10.83
Ohio	1931	1	12	3.8	44.5	30.5	68.5	.438	19.49	13.34
	1933	1	5	5.0	54.0	34.6	64.1	.275	14.85	9.50
Pennsylvania	1931	2	24	4.0	50.3	29.3	58.3	.447	22.48	13.08
	1933	1	17	3.2	48.0	28.3	59.0	.344	16.51	9.75
Rhode Island	1931	3	4	3.5	50.9	32.3	63.5	.460	23.41	14.85
	1933	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Tennessee	1931	1	3	5.7	50.0	48.3	96.6	.318	15.90	15.38
	1933	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Wisconsin	1931	3	16	4.4	48.7	32.3	66.3	.430	20.94	13.88
	1933	2	12	4.1	44.6	27.1	60.8	.330	14.72	8.93
Total	1931	34	230	3.9	48.7	29.4	60.4	.422	20.55	12.40
	1933	31	144	3.9	48.3	30.2	62.5	.314	15.17	9.51
Males and females										
Alabama	1931	4	177	4.7	53.8	43.2	80.3	.423	22.76	18.28
	1933	4	154	5.4	50.0	46.9	93.8	.322	16.10	15.08
California	1931	19	728	4.6	45.4	34.7	76.4	.743	33.73	25.81
	1933	17	508	4.5	43.7	35.4	81.0	.623	27.23	22.07
Colorado	1931	3	177	5.2	48.0	45.6	95.0	.600	28.80	27.33
	1933	4	173	3.9	48.0	30.5	63.5	.500	24.00	15.25
Connecticut	1931	18	1,156	3.4	50.6	28.5	56.3	.589	29.80	16.78
	1933	18	800	2.3	51.4	19.3	37.5	.462	23.75	8.93
Georgia	1931	9	305	4.5	50.9	36.0	70.7	.403	20.51	14.52
	1933	7	237	3.6	50.6	30.8	60.9	.341	17.25	10.48
Illinois	1931	30	3,113	3.9	49.6	30.8	62.1	.646	32.04	19.91
	1933	27	2,127	3.9	47.8	32.1	67.2	.492	23.52	15.76
Indiana	1931	17	1,584	3.8	51.1	29.5	57.7	.557	28.46	16.45
	1933	18	1,094	3.3	51.6	25.3	49.0	.420	21.67	10.62
Iowa	1931	9	561	4.3	53.6	35.0	65.3	.600	32.16	20.86
	1933	8	304	4.2	50.7	35.8	70.6	.503	25.50	17.97
Kansas	1931	10	276	4.0	56.0	37.1	66.3	.455	25.48	16.86
	1933	9	160	4.2	55.2	36.8	66.7	.379	20.92	13.95
Kentucky	1931	5	122	3.6	51.1	30.4	59.5	.519	26.52	15.76
	1933	4	98	4.3	51.2	37.5	73.2	.373	19.10	13.99
Louisiana	1931	5	178	4.5	52.4	35.8	68.3	.401	21.01	14.35
	1933	5	124	3.6	48.4	27.9	57.6	.371	17.96	10.35
Maine	1931	4	239	4.8	48.3	41.4	85.7	.558	26.95	23.08
	1933	4	199	3.9	52.2	35.3	67.6	.414	21.61	14.58
Maryland	1931	7	397	4.6	49.9	40.6	81.4	.543	27.10	22.06
	1933	7	245	3.4	48.0	28.1	58.5	.462	22.18	12.98
Massachusetts	1931	21	1,320	4.2	47.2	33.8	71.6	.690	32.57	23.31
	1933	19	874	3.8	46.7	30.2	64.7	.616	28.77	18.58
Michigan	1931	33	1,936	3.9	52.1	33.2	63.7	.581	30.27	19.27
	1933	32	1,491	3.7	50.4	30.1	59.7	.445	22.43	13.39
Minnesota	1931	6	466	3.9	51.2	32.9	64.3	.589	30.16	19.38
	1933	5	251	3.6	46.4	28.4	61.2	.519	24.08	14.77
Missouri	1931	14	460	4.2	51.9	35.3	68.0	.577	29.95	20.36
	1933	13	292	3.9	51.8	33.0	63.7	.445	23.05	14.67
New Hampshire	1931	5	127	4.5	50.7	37.8	74.6	.567	28.75	21.43
	1933	5	104	2.7	47.1	22.1	46.9	.526	24.77	11.62
New Jersey	1931	16	1,699	4.2	48.9	34.9	71.4	.604	29.54	21.09
	1933	15	1,081	3.6	49.2	30.0	61.0	.466	22.93	14.00
New York	1931	26	2,882	3.9	49.2	33.3	67.7	.594	29.22	19.78
	1933	27	1,761	3.5	49.2	30.4	61.8	.499	24.55	15.16
Ohio	1931	44	3,518	4.1	50.9	34.7	68.2	.610	31.05	21.16
	1933	37	2,081	3.5	51.3	30.7	59.8	.458	23.50	14.04
Oregon	1931	6	163	4.8	47.2	36.5	77.3	.675	31.86	24.63
	1933	5	106	4.4	39.1	29.3	74.9	.595	23.26	17.41
Pennsylvania	1931	39	3,643	3.8	51.1	32.5	63.6	.605	30.92	19.65
	1933	38	3,207	3.4	48.8	28.9	59.2	.494	24.11	14.28

[1] Fewer than 3 employees; therefore data included only in total.

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PERCENT OF FULL TIME WORKED, 1931 AND 1933, BY INDUSTRY, SEX, AND STATE—Continued

Foundries—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Males and females—Contd.										
Rhode Island	1931	7	696	3.8	50.4	31.7	62.9	$0.597	$30.09	$18.91
	1933	6	408	4.1	50.7	33.1	65.3	.556	28.19	18.40
Tennessee	1931	6	256	4.3	49.0	33.6	68.6	.469	22.98	15.74
	1933	5	192	5.1	49.5	31.8	64.2	.452	22.37	14.37
Texas	1931	6	151	4.5	49.0	36.7	74.9	.515	25.24	18.94
	1933	7	123	3.6	49.6	27.7	55.8	.402	19.94	11.15
Washington	1931	6	235	4.8	47.9	37.8	78.9	.698	33.43	26.43
	1933	5	101	3.8	48.0	28.6	59.6	.551	26.45	15.76
Wisconsin	1931	13	2,134	4.3	51.5	35.1	68.2	.583	30.02	20.44
	1933	13	1,468	3.4	50.4	24.4	48.4	.471	23.74	11.48
Total	1931	388	28,699	4.0	50.3	33.5	66.6	.600	30.18	20.06
	1933	364	19,763	3.6	49.4	29.6	59.9	.482	23.81	14.25

Machine shops

Males										
Alabama	1931	7	457	4.5	54.0	40.1	74.3	$0.596	$32.18	$23.88
	1933	7	321	4.8	50.1	41.3	82.4	.401	20.09	16.55
California	1931	23	1,628	5.2	45.1	39.2	86.9	.753	33.96	29.47
	1933	21	947	5.2	44.3	40.7	91.9	.643	28.48	26.20
Colorado	1931	3	282	4.6	48.0	36.5	76.0	.647	31.06	23.63
	1933	4	204	4.1	47.7	32.0	67.1	.550	26.24	17.64
Connecticut	1931	20	2,409	4.3	49.3	37.0	75.1	.659	32.49	24.34
	1933	18	1,028	3.8	48.0	30.1	62.7	.608	29.18	18.30
Georgia	1931	9	396	5.2	51.2	42.6	83.4	.462	23.65	19.66
	1933	7	166	5.1	51.8	40.8	78.8	.352	18.23	14.35
Illinois	1931	36	7,025	4.7	49.5	37.6	76.0	.657	32.52	24.72
	1933	35	5,616	4.5	48.3	34.7	71.8	.548	26.47	19.01
Indiana	1931	17	1,855	4.5	51.1	35.8	70.1	.543	27.75	19.44
	1933	17	1,370	3.8	50.8	27.8	54.7	.477	24.23	13.28
Iowa	1931	7	815	3.9	52.2	34.3	65.7	.569	29.70	19.50
	1933	6	256	4.8	49.5	38.4	77.6	.440	21.78	16.88
Kansas	1931	11	272	5.5	52.9	47.6	90.0	.543	28.72	25.81
	1933	11	296	5.4	49.9	45.4	91.0	.467	23.30	21.20
Kentucky	1931	7	395	4.8	48.9	36.7	75.1	.551	26.94	20.23
	1933	7	255	4.9	49.7	36.9	74.2	.439	21.82	16.18
Louisiana	1931	6	199	5.2	51.4	43.2	84.0	.524	26.93	22.66
	1933	6	129	4.7	48.7	38.5	79.1	.464	22.60	17.86
Maine	1931	4	492	4.7	48.1	39.4	81.9	.550	26.46	21.69
	1933	4	468	4.0	48.8	34.4	70.5	.420	20.50	14.44
Maryland	1931	8	456	4.6	48.4	41.3	85.3	.658	31.85	27.17
	1933	8	324	4.3	47.5	37.7	79.4	.593	28.17	22.37
Massachusetts	1931	38	6,453	4.9	48.2	41.8	86.7	.646	31.14	27.01
	1933	37	4,987	4.6	46.4	37.2	80.2	.563	26.12	20.95
Michigan	1931	35	3,530	4.6	51.5	38.5	74.8	.645	33.22	24.84
	1933	34	2,777	4.5	48.1	36.4	75.7	.533	25.64	19.42
Minnesota	1931	8	940	4.7	49.2	37.6	76.4	.601	29.57	22.57
	1933	8	387	4.8	48.8	38.9	79.7	.570	27.82	22.15
Missouri	1931	19	712	4.9	51.3	39.4	76.8	.562	28.83	22.17
	1933	18	518	4.8	50.4	40.6	80.6	.481	24.24	19.50
New Hampshire	1931	5	341	4.7	48.8	40.7	83.4	.600	29.28	24.37
	1933	5	222	4.4	48.6	31.9	65.6	.608	29.55	19.37
New Jersey	1931	25	2,509	4.9	49.4	40.7	82.4	.679	33.54	27.65
	1933	27	1,660	4.5	48.9	36.3	74.2	.568	27.78	20.63
New York	1931	34	7,488	4.8	49.2	40.3	81.9	.680	33.46	27.37
	1933	34	4,069	4.2	48.2	31.4	65.1	.612	29.50	19.23
Ohio	1931	85	10,316	4.6	49.9	37.4	74.9	.628	31.34	23.50
	1933	73	5,069	4.3	49.0	34.8	71.0	.526	25.77	18.29
Oregon	1931	6	175	5.3	46.2	41.2	89.2	.724	33.45	29.82
	1933	5	118	4.6	47.1	36.0	76.4	.650	30.62	23.43
Pennsylvania	1931	48	8,200	4.2	51.2	35.9	70.1	.616	31.54	22.08
	1933	48	5,786	4.1	49.3	34.0	69.0	.531	26.18	18.01

TABLE 3.—AVERAGE DAYS, HOURS, AND EARNINGS, AND PERCENT OF FULL TIME WORKED, 1931 AND 1933, BY INDUSTRY, SEX, AND STATE—Continued

Machine shops—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Males—Continued										
Rhode Island	1931	11	1,513	4.2	50.4	34.9	69.2	$0.595	$29.99	$20.74
	1933	11	786	4.4	50.6	36.5	72.1	.525	26.57	19.16
Tennessee	1931	9	325	4.7	49.0	35.2	71.8	.568	27.83	20.00
	1933	9	227	4.9	48.7	37.1	76.2	.460	22.40	17.10
Texas	1931	10	554	5.4	48.0	39.1	81.5	.603	28.94	23.59
	1933	11	425	4.5	45.1	34.9	77.4	.527	23.77	18.41
Washington	1931	7	392	5.3	47.6	42.8	89.9	.729	34.70	31.16
	1933	7	219	5.1	45.0	38.3	85.1	.636	28.62	24.39
Wisconsin	1931	14	4,792	4.5	51.2	36.3	70.9	.617	31.59	22.43
	1933	14	2,373	4.0	50.4	29.5	58.5	.530	26.71	15.65
Total	1931	512	64,921	4.6	49.8	38.2	76.7	.637	31.72	24.36
	1933	492	41,003	4.4	48.5	34.6	71.3	.545	26.43	18.87
Females										
Connecticut	1931	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
	1933	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Illinois	1931	7	56	4.4	50.9	34.7	68.2	.373	18.99	12.95
	1933	5	43	4.7	50.9	35.8	70.3	.299	15.22	10.68
Indiana	1931	1	21	4.4	50.0	27.2	54.4	.471	23.55	12.80
	1933	1	82	3.9	50.0	17.4	34.8	.371	18.55	6.45
Maine	1931	1	8	2.9	50.0	27.0	54.0	.380	19.00	10.26
	1933	1	9	3.2	50.0	28.1	56.2	.270	13.50	7.60
Massachusetts	1931	7	87	4.6	47.7	38.7	81.1	.448	21.37	17.35
	1933	5	89	4.4	45.5	31.8	69.9	.399	18.15	12.69
Michigan	1931	7	201	4.9	52.3	41.9	80.1	.398	20.82	16.66
	1933	8	239	5.1	45.2	41.1	90.9	.374	16.90	15.41
New Hampshire	1931	1	18	3.9	48.0	31.6	65.8	.431	20.69	13.63
	1933	1	25	2.9	48.0	23.3	48.5	.328	15.74	7.63
New Jersey	1931	2	22	5.0	50.0	39.0	78.0	.423	21.15	16.49
	1933	2	2	5.0	48.5	43.0	88.7	.263	12.76	11.30
New York	1931	6	214	4.9	48.1	38.6	80.2	.473	22.75	18.23
	1933	6	211	4.5	48.0	35.4	73.8	.383	18.38	13.57
Ohio	1931	6	212	5.1	49.4	41.4	83.8	.347	17.14	14.38
	1933	8	153	4.7	48.6	37.6	77.4	.255	12.39	9.60
Pennsylvania	1931	4	93	4.1	46.4	35.6	76.7	.397	18.42	14.13
	1933	5	57	3.4	46.7	25.9	55.5	.389	18.17	10.07
Rhode Island	1931	4	38	4.3	50.8	36.2	71.3	.453	23.01	16.40
	1933	2	17	4.8	51.4	41.8	81.3	.366	18.81	15.30
Tennessee	1931	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Wisconsin	1931	1	45	4.8	45.5	38.8	85.3	.378	17.20	14.66
	1933	3	29	3.8	44.9	23.7	52.8	.291	13.07	6.89
Total	1931	49	1,017	4.7	49.2	38.8	78.9	.408	20.07	15.85
	1933	48	957	4.5	47.4	34.2	72.2	.351	16.64	11.98
Males and females										
Alabama	1931	7	457	4.5	54.0	40.1	74.3	.596	32.18	23.88
	1933	7	321	4.8	50.1	41.3	82.4	.401	20.09	16.55
California	1931	23	1,628	5.2	45.1	39.2	86.9	.753	33.96	29.47
	1933	21	947	5.2	44.3	40.7	91.9	.643	28.48	26.20
Colorado	1931	3	282	4.6	48.0	36.5	76.0	.647	31.06	23.63
	1933	4	204	4.1	47.7	32.0	67.1	.550	26.24	17.64
Connecticut	1931	20	2,410	4.3	49.3	37.0	75.1	.659	32.49	24.34
	1933	18	1,029	3.8	48.0	30.1	62.7	.608	29.18	18.30
Georgia	1931	9	396	5.2	51.2	42.6	83.2	.462	23.65	19.66
	1933	7	166	5.1	51.8	40.8	78.8	.352	18.23	14.35
Illinois	1931	36	7,081	4.7	49.6	37.6	75.8	.655	32.49	24.63
	1933	35	5,659	4.5	48.3	34.7	71.8	.546	26.37	18.95
Indiana	1931	17	1,876	4.5	51.0	35.7	70.0	.543	27.69	19.37
	1933	17	1,452	3.8	50.8	27.2	53.5	.473	24.03	12.89
Iowa	1931	7	815	3.9	52.2	34.3	65.7	.569	29.70	19.50
	1933	6	256	4.8	49.5	38.4	77.6	.440	21.78	16.88
Kansas	1931	11	272	5.5	52.9	47.6	90.0	.543	28.72	25.81
	1933	11	296	5.4	49.9	45.4	91.0	.467	23.30	21.20
Kentucky	1931	7	395	4.8	48.9	36.7	75.1	.551	26.94	20.23
	1933	7	255	4.9	49.7	36.9	74.2	.439	21.82	16.18

[1] Fewer than 3 employees, therefore data included only in total.

TABLE 3.—AVERAGE DAYS, HOURS AND EARNINGS, AND PERCENT OF FULL TIME WORKED, 1931 AND 1933, BY INDUSTRY, SEX, AND STATE—Continued

Machine shops—Continued

Sex and State	Year	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
						Average number	Percent of full time			
Males and females—Continued										
Louisiana	1931	6	199	5.2	51.4	43.2	84.0	$0.524	$26.93	$22.66
	1933	6	129	4.7	48.7	38.5	79.1	.464	22.60	17.86
Maine	1931	4	500	4.7	48.1	39.2	81.5	.548	26.36	21.51
	1933	4	477	4.0	48.8	34.3	70 3	.418	20.40	14.31
Maryland	1931	8	456	4.6	48.4	41.3	85.3	.658	31.85	27.17
	1933	8	324	4.3	47.5	37.7	79.4	.593	28.17	22.37
Massachusetts	1931	38	6,540	4.9	48.2	41.8	86.7	.644	31.04	26.88
	1933	37	5,076	4.6	46.4	37.1	80.0	.561	26.03	20.81
Michigan	1931	35	3,731	4.6	51.5	38.7	75.1	.631	32.50	24.40
	1933	34	3,016	4.6	47.9	36.8	76.8	.519	24.86	19.10
Minnesota	1931	8	940	4.7	49.2	37.6	76.4	.601	29.57	22.57
	1933	8	387	4.8	48.8	38.9	79.7	.570	27.82	22.15
Missouri	1931	19	712	4.9	51.3	39.4	76.8	.562	28.83	22.17
	1933	18	518	4.8	50.4	40.6	80.6	.481	24.24	19.50
New Hampshire	1931	5	359	4.7	48.7	40.2	82.5	.594	28.93	23.83
	1933	5	247	4.2	48.6	31.0	63.8	.587	28.53	18.18
New Jersey	1931	25	2,531	5.0	49.4	40.7	82.4	.677	33.44	27.55
	1933	27	1,662	4.5	48.9	36.3	74.2	.568	27.78	20.62
New York	1931	34	7,702	4.8	49.2	40.3	81.9	.674	33.16	27.13
	1933	34	4,280	4.2	48.2	31.6	65.6	.599	28.87	18.95
Ohio	1931	85	10,528	4.6	49.9	37.5	75.2	.622	31.04	23.32
	1933	73	5,222	4.3	49.0	34.8	71.0	.518	25.38	18.04
Oregon	1931	6	175	5.3	46.2	41.2	89.2	.724	33.45	29.82
	1933	5	118	4.6	47.1	36.0	76.4	.650	30.62	23.43
Pennsylvania	1931	48	8,203	4.2	51.1	35.9	70.3	.614	31.38	22.00
	1933	48	5,843	4.1	49.3	33.9	68.8	.529	26.08	17.94
Rhode Island	1931	11	1,551	4.2	50.4	34.9	69.2	.591	29.79	20.63
	1933	11	803	4.4	50.6	36.6	72.3	.521	26.36	19.08
Tennessee	1931	9	326	4.7	49.0	35.3	72.0	.567	27.78	19.99
	1933	9	227	4.9	48.7	37.1	76.2	.460	22.40	17.10
Texas	1931	10	554	5.4	48.0	39.1	81.5	.603	28.94	23.59
	1933	11	425	4.5	45.1	34.9	77.4	.527	23.77	18.41
Washington	1931	7	392	5.3	47.6	42.8	89.9	.729	34.70	31.16
	1933	7	219	5.1	45.0	38.3	85.1	.636	28.62	24.39
Wisconsin	1931	14	4,837	4.5	51.1	36.4	71.2	.615	31.43	22.36
	1933	14	2,402	4.0	50.4	29.5	58.5	.528	26.61	15.55
Total	1931	512	65,938	4.6	49.8	38.2	76.7	.634	31.57	24.22
	1933	492	41,960	4.4	48.5	34.6	71.3	.510	26.19	18.71

Average Days, Hours, and Earnings, 1933, by Occupation, Sex, and State

TABLE 4 shows average days, hours, and earnings and the percent of full time actually worked in 1 week in 1933, by States, for the wage earners in each of 4 representative occupations in foundries and 4 in machine shops. The averages for the wage earners in these occupations illustrate the variations in average hours and earnings in all occupations in each industry in the different States, and make easy the comparison of the averages of the wage earners in any occupation in the table for any State with those for any other State.

Average hours actually worked in 1 week in 1933 by molders (hand), floor, the second occupation under foundries, ranged, by States, from a low of 16.9 to a high of 44.2 hours. The low was 34.6 and the high 89.7 percent of full time. The average for all States was 25.7 hours, or 52.6 percent of full time.

Average earnings per hour of molders (hand), floor, ranged, by States, from 43.4 to 75.6 cents, and for all States averaged 61.2 cents. Average actual earnings in 1 week ranged, by States, from $10.39 to $23.95, and for all States averaged $15.70.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN EIGHT SPECIFIED OCCUPATIONS, 1933, BY INDUSTRY AND STATE

Foundries

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Percent of full time			
Laborers, male:									
Alabama	3	23	5.4	50.0	46.9	93.8	$0.216	$10.80	$10.13
California	16	70	4.6	44.4	37.7	84.9	.495	21.98	18.64
Colorado	4	43	3.5	48.0	27.9	58.1	.403	19.34	11.23
Connecticut	16	193	2.2	52.2	17.9	34.3	.365	19.05	6.53
Georgia	7	63	3.0	52.1	24.7	47.4	.218	11.36	5.37
Illinois	26	494	3.9	48.2	32.7	67.8	.402	19.38	13.15
Indiana	18	245	3.3	52.2	24.1	46.2	.337	17.59	8.12
Iowa	8	53	3.8	50.9	31.9	62.7	.424	21.58	13.56
Kansas	9	32	3.8	56.4	34.4	61.0	.283	15.96	9.75
Kentucky	4	34	4.3	51.0	36.7	72.0	.284	14.48	10.44
Louisiana	5	26	3.0	47.3	24.4	51.6	.273	12.91	6.65
Maine	1	28	3.8	54.0	36.9	68.3	.332	17.93	12.27
Maryland	6	40	3.1	50.8	26.9	53.0	.305	15.49	8.21
Massachusetts	15	138	3.8	46.9	30.4	64.8	.480	22.51	14.59
Michigan	30	357	3.3	51.6	28.4	55.0	.355	18.32	10.08
Minnesota	5	37	3.4	46.0	30.2	65.7	.413	19.00	12.46
Missouri	13	61	3.7	52.0	30.2	58.1	.336	17.47	10.13
New Hampshire	3	9	1.8	49.1	14.7	29.9	.461	22.64	6.77
New Jersey	12	247	3.4	48.7	29.5	60.6	.353	17.19	10.42
New York	27	347	3.3	49.2	30.2	61.4	.415	20.42	12.54
Ohio	35	468	3.4	51.4	29.1	56.6	.353	18.14	10.28
Oregon	3	14	4.6	37.7	29.6	78.5	.470	17.72	13.93
Pennsylvania	37	700	3.1	49.9	26.7	53.5	.367	18.31	9.80
Rhode Island	4	77	3.2	51.6	29.0	56.2	.382	19.71	11.08
Tennessee	4	63	5.0	49.1	45.0	91.6	.201	9.87	9.03
Texas	4	10	3.0	49.8	23.4	47.0	.305	15.19	7.14
Washington	3	7	4.3	48.0	34.5	71.9	.480	23.04	16.57
Wisconsin	12	255	3.0	50.2	20.3	40.4	.375	18.83	7.62
Total	330	4,134	3.4	50.0	27.8	55.6	.378	18.90	10.50
Molders, hand, floor, male:									
Alabama	4	26	5.4	49.3	44.2	89.7	.538	26.52	23.79
California	17	84	4.2	43.0	31.7	73.7	.756	32.51	23.95
Colorado	4	26	3.5	48.1	28.4	59.0	.535	25.73	15.20
Connecticut	18	120	2.0	48.9	16.9	34.6	.615	30.07	10.39
Georgia	7	25	4.0	49.8	34.4	69.1	.545	27.14	18.78
Illinois	27	192	3.2	48.3	25.9	53.6	.598	28.88	15.48
Indiana	18	131	2.9	51.7	24.0	46.4	.507	26.21	12.18
Iowa	8	57	3.6	50.1	30.5	60.9	.631	31.61	19.29
Kansas	9	32	3.9	54.3	34.5	63.5	.471	25.58	16.27
Kentucky	4	21	4.0	52.7	36.0	68.3	.469	24.72	16.85
Louisiana	5	20	4.3	47.1	33.0	70.1	.565	26.61	18.61
Maine	4	20	3.7	49.2	30.2	61.4	.562	27.65	17.00
Maryland	5	46	3.2	47.1	26.6	56.5	.641	30.19	17.03
Massachusetts	18	124	3.4	47.0	26.1	55.5	.723	33.98	18.87
Michigan	30	183	3.2	48.9	24.4	49.9	.598	29.24	14.56
Minnesota	5	44	3.3	46.6	25.3	54.3	.629	29.31	15.91
Missouri	12	57	3.4	52.4	27.3	52.1	.590	30.92	16.12
New Hampshire	4	14	2.1	46.0	17.3	37.6	.621	28.57	10.73
New Jersey	14	138	3.2	50.0	26.9	53.8	.616	30.80	16.60
New York	26	204	2.7	48.5	22.4	46.2	.680	32.98	15.24
Ohio	36	268	2.8	50.1	22.9	45.7	.599	30.01	13.72
Oregon	5	20	3.0	39.9	20.1	50.4	.722	28.81	14.49
Pennsylvania	34	418	3.3	48.4	27.2	56.2	.622	30.10	16.91
Rhode Island	5	41	4.2	50.1	33.7	67.3	.708	35.47	23.83
Tennessee	5	29	4.7	50.0	41.3	82.6	.434	21.70	17.96
Texas	7	32	2.8	48.2	22.1	45.9	.492	23.71	10.86
Washington	5	22	3.5	48.0	25.0	52.1	.649	31.15	16.22
Wisconsin	13	162	2.9	50.3	20.5	40.8	.582	29.27	11.91
Total	349	2,556	3.2	48.9	25.7	52.6	.612	29.93	15.70

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN EIGHT SPECIFIED OCCUPATIONS, 1933, BY INDUSTRY AND STATE—Continued

Foundries—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Percent of full time			
Molders, machine, male:									
Alabama	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
California	5	15	4.7	46.5	39.6	85.2	$0.485	$22.55	$19.21
Colorado	2	3	3.7	48.0	25.3	52.9	.503	24.14	12.73
Connecticut	3	31	3.1	57.2	26.1	45.6	.395	22.59	10.31
Georgia	2	24	2.0	52.1	15.1	29.0	.527	27.46	7.98
Illinois	18	268	3.6	47.9	29.6	61.8	.505	24.19	14.95
Indiana	10	159	4.0	48.9	27.6	56.4	.414	20.24	11.42
Iowa	5	30	4.3	48.6	38.8	79.8	.484	23.52	18.74
Kansas	5	6	4.2	55.0	35.6	64.7	.400	22.00	14.25
Kentucky	2	3	5.0	49.3	46.1	93.5	.438	21.59	20.18
Louisiana	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Maine	2	27	3.9	53.3	35.1	65.9	.532	28.36	18.67
Maryland	5	16	3.7	47.1	28.7	60.9	.562	26.47	16.13
Massachusetts	14	154	4.1	46.3	31.5	68.0	.640	29.63	20.15
Michigan	17	168	3.8	51.4	32.6	63.4	.401	20.61	13.07
Minnesota	3	15	3.0	43.1	24.3	56.4	.480	20.69	11.64
Missouri	3	5	3.4	52.8	25.2	47.7	.372	19.64	9.38
New Hampshire	2	9	1.7	46.7	14.7	31.5	.571	26.67	8.38
New Jersey	8	102	3.3	51.4	29.2	56.8	.508	26.11	14.85
New York	18	218	3.2	48.6	28.3	58.2	.559	27.17	15.86
Ohio	22	199	3.3	49.7	28.3	56.9	.494	24.55	14.01
Oregon	1	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Pennsylvania	24	202	2.7	48.3	21.6	44.7	.557	26.90	12.04
Rhode Island	4	84	4.0	50.8	31.8	62.6	.619	31.45	19.71
Tennessee	2	4	4.8	48.8	38.4	78.7	.309	15.08	11.86
Texas	2	5	5.0	49.6	37.8	76.2	.403	19.99	15.20
Wisconsin	9	88	3.7	49.0	23.9	48.8	.421	20.63	10.07
Total	190	1,840	3.5	49.2	28.5	57.9	.508	24.99	14.50
Patternmakers, male:									
Alabama	3	14	5.1	50.6	41.8	82.6	.603	30.51	25.16
California	7	13	5.1	43.2	35.2	81.5	.804	34.73	28.28
Colorado	3	9	3.9	48.1	28.1	58.4	.712	34.25	19.99
Connecticut	5	13	4.3	54.1	42.7	78.9	.524	28.35	22.38
Georgia	5	9	4.9	50.0	38.8	77.6	.609	30.45	23.64
Illinois	14	105	4.8	46.1	39.8	86.3	.707	32.59	28.13
Indiana	10	31	3.5	50.5	27.8	55.0	.648	32.72	18.01
Iowa	7	10	4.3	50.0	33.7	67.4	.616	30.80	20.72
Kansas	2	3	5.3	54.0	53.0	98.1	.713	38.50	37.77
Louisiana	4	5	4.8	53.4	40.9	76.6	.557	29.74	22.80
Maryland	6	10	2.6	47.8	18.3	38.3	.619	29.59	11.31
Massachusetts	4	18	5.2	48.1	45.8	95.2	.718	34.54	32.90
Michigan	17	42	4.4	51.4	35.5	69.1	.600	30.84	21.31
Minnesota	4	7	4.7	51.1	36.1	70.6	.714	36.49	25.79
Missouri	8	9	4.2	52.1	36.6	70.2	.602	31.36	22.02
New Hampshire	1	3	5.0	50.0	43.0	86.0	.505	25.25	21.71
New Jersey	10	75	4.9	49.2	42.8	87.0	.639	31.44	27.34
New York	7	38	5.2	49.8	44.5	89.4	.702	34.96	31.20
Ohio	15	55	4.8	50.7	41.8	82.4	.620	31.43	25.89
Oregon	2	3	5.7	36.0	44.1	122.5	.789	28.40	34.81
Pennsylvania	27	144	4.5	48.2	38.5	79.9	.651	31.38	25.08
Rhode Island	2	7	3.9	52.1	32.4	62.2	.589	30.69	19.06
Tennessee	1	3	6.0	50.0	50.3	100.6	.800	40.00	40.27
Texas	5	8	4.1	48.8	27.9	57.2	.617	30.11	17.19
Washington	3	4	5.0	48.0	33.7	70.2	.763	36.62	25.73
Wisconsin	10	70	4.9	51.8	39.5	76.3	.611	31.65	24.12
Total	182	708	4.7	49.2	38.9	79.1	.652	32.08	25.36

[1] Fewer than 3 wage earners, therefore data included only in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN EIGHT SPECIFIED OCCUPATIONS, 1933, BY INDUSTRY AND STATE—Continued

Machine shops

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Percent of full time			
Fitters and bench hands, male:									
Alabama	2	8	3.8	41.9	31.4	74.9	$0.315	$13.20	$9.89
California	12	32	5.5	42.8	39.7	92.8	.715	30.60	28.41
Colorado	3	18	4.4	48.1	36.7	76.3	.426	20.49	15.63
Connecticut	13	74	4.4	48.8	37.0	75.8	.627	30.60	23.16
Georgia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois	24	316	4.3	48.7	32.8	67.4	.493	24.01	16.18
Indiana	8	76	3.5	50.8	26.8	52.8	.487	24.74	13.08
Iowa	4	11	4.2	50.2	33.8	67.3	.452	22.69	15.26
Kansas	5	21	5.7	47.8	48.5	101.5	.699	33.41	33.89
Kentucky	5	15	4.7	47.2	35.7	75.6	.522	24.64	18.62
Louisiana	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Maine	2	34	3.5	47.4	30.3	63.9	.404	19.15	12.26
Maryland	4	13	4.6	46.5	38.8	83.4	.657	30.55	25.47
Massachusetts	18	238	4.5	46.1	34.7	75.3	.583	26.88	20.23
Michigan	21	148	4.5	49.7	38.2	76.9	.493	24.50	18.83
Minnesota	4	8	4.3	46.9	31.0	66.1	.538	25.23	16.65
Missouri	8	34	5.2	51.0	46.8	91.8	.512	26.11	23.95
New Hampshire	1	12	4.4	48.0	26.5	55.2	.559	26.83	14.83
New Jersey	16	138	4.1	48.5	31.1	64.1	.598	29.00	18.58
New York	24	262	4.4	48.1	33.8	70.3	.648	31.17	21.90
Ohio	37	250	4.4	48.4	35.8	74.0	.589	28.51	21.04
Oregon	4	8	4.8	47.5	33.2	69.9	.619	29.40	20.57
Pennsylvania	39	323	3.8	49.1	31.5	64.2	.572	28.09	18.05
Rhode Island	9	53	4.5	50.7	38.2	75.3	.490	24.84	18.72
Tennessee	5	14	3.9	47.7	24.1	50.5	.540	25.76	13.00
Texas	5	17	5.1	47.1	35.6	75.6	.468	22.04	16.66
Washington	2	11	4.7	45.8	35.6	77.7	.646	29.59	22.98
Wisconsin	13	107	3.6	50.3	26.2	52.1	.540	27.16	14.11
Total	290	2,244	4.3	48.5	33.7	69.5	.562	27.26	18.96
Laborers, male:									
Alabama	3	29	5.1	53.5	45.1	84.3	.218	11.66	9.83
California	13	53	4.6	44.5	37.4	84.0	.425	18.91	15.89
Colorado	3	7	3.6	46.9	26.5	56.5	.397	18.62	10.51
Connecticut	12	58	3.3	48.9	27.1	55.4	.415	20.29	11.25
Georgia	3	18	4.9	53.2	39.8	74.8	.187	9.95	7.45
Illinois	29	427	4.3	49.0	33.0	67.3	.396	19.40	13.04
Indiana	12	95	4.2	50.7	28.3	55.8	.344	17.44	9.74
Iowa	4	15	4.4	47.7	38.4	80.5	.332	15.84	12.76
Kansas	5	10	5.3	50.0	45.0	90.0	.276	13.80	12.44
Kentucky	4	11	5.3	50.7	38.3	75.5	.234	11.86	8.98
Louisiana	3	4	6.0	53.0	55.4	104.5	.194	10.28	10.74
Maine	2	8	4.0	50.0	34.7	69.4	.319	15.95	11.06
Maryland	5	14	4.4	48.6	36.8	75.7	.359	17.45	13.19
Massachusetts	24	220	4.6	46.8	37.0	79.1	.414	19.38	15.31
Michigan	24	178	4.4	47.4	33.6	70.9	.410	19.43	13.75
Minnesota	8	17	4.1	47.7	32.2	67.5	.370	17.65	11.92
Missouri	7	33	4.4	50.8	36.1	71.1	.313	15.90	11.29
New Hampshire	2	6	4.7	49.0	31.5	64.3	.443	21.71	13.97
New Jersey	22	95	4.2	48.7	32.7	67.1	.395	19.24	12.92
New York	21	232	3.8	48.0	29.5	61.5	.426	20.45	12.55
Ohio	61	348	4.0	49.1	33.4	68.0	.357	17.53	11.92
Oregon	2	2	5.0	48.0	40.8	85.0	.378	18.14	15.42
Pennsylvania	36	401	4.0	49.3	33.3	67.5	.385	18.98	12.83
Rhode Island	10	62	3.8	50.3	30.0	59.6	.356	17.91	10.68
Tennessee	7	33	4.8	48.7	38.5	79.1	.230	11.20	8.87
Texas	3	26	5.0	44.8	38.2	85.3	.338	15.14	12.92
Washington	6	10	4.6	45.4	33.5	73.8	.438	19.89	14.69
Wisconsin	14	141	3.9	50.7	27.1	53.5	.358	18.15	9.71
Total	345	2,553	4.2	48.8	33.0	67.6	.379	18.50	12.52

[1] Fewer than 3 wage earners, therefore data included only in total.

TABLE 4.—AVERAGE DAYS, HOURS, AND EARNINGS OF MALES IN EIGHT SPECIFIED OCCUPATIONS, 1933, BY INDUSTRY AND STATE—Continued

Machine shops—Continued

Occupation, sex, and State	Number of establishments	Number of wage earners	Average days worked in 1 week	Average full-time hours per week	Hours actually worked in 1 week		Average earnings per hour	Average full-time earnings per week	Average actual earnings in 1 week
					Average number	Percent of full time			
Lathe operators, engine, male:									
Alabama	3	9	4.3	52.1	33.3	63.9	$0.474	$24.70	$15.78
California	19	103	5.1	44.7	37.9	84.8	.665	29.73	25.24
Colorado	3	6	3.8	46.7	22.9	49.0	.560	26.15	12.84
Connecticut	13	86	3.6	49.5	29.6	59.8	.619	30.64	18.28
Georgia	1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Illinois	26	276	4.0	48.5	29.4	60.6	.605	29.34	17.79
Indiana	13	73	3.3	51.0	23.9	46.9	.512	26.11	12.24
Iowa	5	15	4.6	49.0	36.0	73.5	.482	23.62	17.33
Kansas	5	32	5.8	47.5	46.2	97.3	.631	29.97	29.12
Kentucky	6	17	4.8	49.3	35.4	71.8	.457	22.53	16.19
Louisiana	2	10	5.9	55.2	54.9	99.5	.426	23.52	23.39
Maine	1	38	4.0	50.0	36.0	72.0	.380	19.00	13.69
Maryland	3	6	2.5	50.0	18.6	37.2	.596	29.80	11.10
Massachusetts	27	327	4.6	46.1	38.1	82.6	.541	24.94	20.63
Michigan	21	97	4.0	50.4	29.3	58.1	.541	27.27	15.82
Minnesota	6	20	5.1	50.0	41.1	82.2	.555	27.75	22.81
Missouri	11	47	4.9	50.8	40.5	79.7	.521	26.47	21.07
New Hampshire	3	17	4.6	51.1	35.6	69.7	.595	30.40	21.19
New Jersey	19	94	4.6	48.4	38.4	79.3	.623	30.15	23.88
New York	27	186	3.8	48.2	28.9	60.0	.648	31.23	18.74
Ohio	59	205	3.9	50.4	30.7	60.9	.597	30.09	18.36
Oregon	5	17	4.7	47.8	34.2	71.5	.731	34.94	24.97
Pennsylvania	43	369	4.2	50.3	35.9	71.4	.570	28.67	20.42
Rhode Island	10	47	4.3	50.4	35.5	70.4	.521	26.26	18.48
Tennessee	3	8	5.3	50.6	40.3	79.6	.474	23.98	19.08
Texas	4	38	4.5	41.4	34.1	82.4	.664	27.49	22.66
Washington	6	14	5.1	43.0	35.4	82.3	.663	28.51	23.49
Wisconsin	13	116	3.8	50.9	27.0	53.0	.546	27.79	14.73
Total	357	2,274	4.2	48.8	33.5	68.6	.578	28.21	19.33
Toolmakers, male:									
Alabama	1	6	3.5	55.0	28.0	50.9	.493	27.12	13.79
California	13	40	5.8	44.7	44.5	99.6	.787	35.18	34.99
Colorado	2	13	3.3	48.0	25.9	54.0	.659	31.63	17.06
Connecticut	14	67	3.6	49.7	28.8	57.9	.621	30.86	17.89
Georgia	2	3	5.3	50.8	44.8	88.2	.711	36.12	31.87
Illinois	21	192	4.6	49.2	36.9	75.0	.659	32.42	24.31
Indiana	10	59	3.7	50.4	27.2	54.0	.609	30.69	16.56
Iowa	3	5	5.2	50.6	40.1	79.2	.573	28.99	22.96
Kansas	3	6	5.8	50.0	48.4	96.8	.484	24.20	23.42
Kentucky	3	15	4.6	49.6	32.5	65.5	.562	27.88	18.23
Maine	1	9	4.4	50.0	39.4	78.8	.434	21.70	17.08
Maryland	3	13	4.8	48.3	42.0	87.0	.729	35.21	30.63
Massachusetts	24	155	4.6	47.0	37.9	80.6	.611	28.72	23.17
Michigan	22	87	4.7	49.7	39.8	80.1	.591	29.37	23.54
Minnesota	6	8	4.6	47.9	35.9	74.9	.612	29.31	21.96
Missouri	5	8	4.1	51.9	38.0	73.2	.634	32.90	24.09
New Hampshire	1	12	5.0	48.0	43.8	91.3	.671	32.21	29.37
New Jersey	15	40	4.9	48.9	38.3	78.3	.621	29.81	23.80
New York	24	267	4.9	48.0	36.2	75.4	.732	35.14	26.49
Ohio	46	253	4.5	48.3	38.1	78.9	.570	27.53	21.71
Oregon	2	2	6.5	48.0	52.7	109.8	.733	35.18	38.61
Pennsylvania	29	163	4.5	48.9	38.3	78.3	.660	32.27	25.26
Rhode Island	6	26	4.2	50.5	31.6	62.6	.686	34.64	21.67
Tennessee	3	3	5.3	50.0	41.5	83.0	.580	29.00	24.06
Texas	5	15	3.7	43.5	26.0	59.8	.691	30.08	17.94
Washington	4	7	4.7	46.3	46.3	77.5	.695	32.18	24.94
Wisconsin	11	61	4.6	50.8	37.2	73.2	.605	30.73	22.52
Total	279	1,535	4.6	48.6	36.8	75.7	.643	31.25	23.62

[1] Fewer than 3 employees, therefore data included only in total.

Wage-Rate Changes in American Industries

Manufacturing Industries

THE following table presents information concerning wage-rate adjustments occurring between September 15 and October 15, 1933, as shown by reports received from manufacturing establishments supplying employment data to this Bureau.

Increases in wage rates averaging 12.3 percent and affecting 96,461 employees were reported by 468 of the 18,602 manufacturing establishments surveyed in October. The iron and steel industry reported the greatest number of workers affected by wage-rate increases over the month interval. Thirty-five establishments in that industry reported increases in wage rates affecting 38,053 workers and averaging 10.7 percent. Increases affecting 7,109 employees and averaging 10.6 percent were reported by 21 establishments in the automobile industry. Other industries in which increases in rates affecting from 2,000 to 3,000 employees were reported were foundry and machine-shop products, chemicals, rayon, and brass, bronze, and copper products.

Of the 18,602 manufacturing establishments included in the October survey, 18,129 establishments, or 97.5 percent of the total, reported no change in wage rates over the month interval. The 3,262,266 employees not affected by changes in wage rates constituted 97.1 percent of the total number of employees covered by the October trend-of-employment survey of manufacturing industries.

Only five manufacturing establishments reported wage-rate decreases between September and October.

TABLE 1.—WAGE-RATE CHANGES IN **MANUFACTURING** INDUSTRIES DURING MONTH ENDING OCTOBER 15, 1933

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
All manufacturing industries	18,602	3,358,960	18,129	468	5	3,262,266	96,461	233
Percent of total	100.0	100.0	97.5	2.5	(1)	97.1	2.9	(1)
Food and kindred products:								
Baking	1,030	73,420	1,013	17	----	73,082	338	----
Beverages	413	26,154	396	15	2	25,228	921	5
Butter	307	5,966	305	2	----	5,960	6	----
Confectionery	302	43,619	297	4	1	43,507	99	13
Flour	417	17,646	412	5	----	17,553	93	----
Ice cream	356	11,377	349	7	----	11,285	92	----
Slaughtering and meat packing	244	112,501	243	1	----	112,498	3	----
Sugar, beet	63	21,913	54	9	----	19,955	1,958	----
Sugar refining, cane	13	9,704	10	3	----	7,518	2,186	----
Textiles and their products:								
Fabrics:								
Carpets and rugs	27	16,632	27	----	----	16,632	----	----
Cotton goods	689	309,034	683	6	----	308,238	796	----
Cotton small wears	116	11,621	114	2	----	11,616	5	----
Dyeing and finishing textiles	153	33,600	151	2	----	33,460	140	----
Hats, fur-felt	36	6,248	36	----	----	6,248	----	----
Knit goods	466	124,945	454	12	----	123,553	1,392	----
Silk and rayon goods	238	50,798	236	2	----	50,001	797	----
Woolen and worsted goods	240	75,365	239	1	----	75,118	247	----

[1] Less than 1 tenth of one percent.

TABLE 1.—WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING OCTOBER 15, 1933—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
Textiles and their products—Continued.								
Wearing apparel:								
Clothing, men's	396	70,604	374	22		67,949	2,655	
Clothing, women's	593	34,458	566	27		32,959	1,499	
Corsets and allied garments	32	5,453	29	3		5,050	403	
Men's furnishings	73	7,242	70	3		7,109	133	
Millinery	135	8,845	134	1		8,792	53	
Shirts and collars	122	18,650	122			18,650		
Iron and steel and their products, not including machinery:								
Bolts, nuts, washers, and rivets	79	14,406	78	1		13,812	594	
Cast-iron pipe	44	6,630	42	2		6,092	538	
Cutlery (not including silver and plated cutlery) and edge tools	132	11,292	129	3		11,203	89	
Forgings, iron and steel	66	7,214	63	3		6,806	408	
Hardware	99	28,269	97	2		28,216	53	
Iron and steel	206	254,363	171	35		216,310	38,053	
Plumbers' supplies	73	9,314	70	3		9,242	72	
Steam and hot-water heating apparatus and steam fittings	98	16,843	92	6		16,256	587	
Stoves	162	25,346	155	7		24,697	649	
Structural and ornamental metal work	202	17,045	197	5		16,523	522	
Tin cans and other tinware	60	10,238	58	2		10,081	157	
Tools (not including edge tools, machine tools, files, and saws)	127	8,950	126	1		8,934	16	
Wirework	71	7,836	70	1		7,832	4	
Machinery, not including transportation equipment:								
Agricultural implements	79	9,118	75	4		7,773	1,345	
Cash registers, adding machines, and calculating machines	35	16,366	35			16,366		
Electrical machinery, apparatus, and supplies	291	112,500	282	9		111,053	1,447	
Engines, turbines, tractors, and water wheels	92	21,167	87	5		20,069	1,098	
Foundry and machine-shop products	1,075	125,024	1,046	29		122,015	3,009	
Machine tools	143	15,601	136	7		14,813	788	
Radios and phonographs	43	37,148	38	5		36,852	296	
Textile machinery and parts	52	10,768	51	1		10,621	147	
Typewriters and supplies	16	11,988	15	1		11,979	9	
Nonferrous metals and their products:								
Aluminum manufactures	27	6,949	26	1		6,937	12	
Brass, bronze, and copper products	212	39,185	207	5		36,621	2,564	
Clocks and watches and time-recording devices	27	9,606	26	1		9,376	230	
Jewelry	130	9,487	130			9,487		
Lighting equipment	52	3,642	52			3,642		
Silverware and plated ware	56	9,247	56			9,247		
Smelting and refining—copper, lead, and zinc	42	14,140	40	2		13,289	851	
Stamped and enameled ware	86	15,932	84	2		15,104	828	
Transportation equipment:								
Aircraft	25	6,445	24	1		5,295	1,150	
Automobiles	239	221,612	218	21		214,503	7,109	
Cars, electric and steam railroad	49	8,876	49			8,876		
Locomotives	11	2,851	11			2,851		
Shipbuilding	100	30,322	98	2		30,255	67	
Railroad repair shops:								
Electric railroad	380	19,631	363	17		18,741	890	
Steam railroad	540	76,434	540			76,434		

TABLE 1.—WAGE-RATE CHANGES IN MANUFACTURING INDUSTRIES DURING MONTH ENDING OCTOBER 15, 1933—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage rate increases	Wage rate decreases
Lumber and allied products:								
Furniture	468	60,655	455	13		58,751	1,904	
Lumber:								
Millwork	494	21,348	481	12	1	20,890	328	130
Sawmills	621	83,438	614	7		82,722	716	
Turpentine and rosin	27	1,923	26	1		1,829	94	
Stone, clay, and glass products:								
Brick, tile, and terra cotta	662	20,469	650	12		20,142	327	
Cement	131	13,199	128	3		12,609	510	
Glass	177	46,900	170	7		46,076	824	
Marble, granite, slate, and other products	235	5,982	234	1		5,957	25	
Pottery	120	19,007	118	2		18,894	113	
Leather and its manufactures:								
Boots and shoes	348	120,806	339	9		119,931	875	
Leather	158	32,227	152	6		31,619	608	
Paper and printing:								
Boxes, paper	327	27,785	325	2		27,685	100	
Paper and pulp	416	101,951	409	7		100,883	1,068	
Printing and publishing:								
Book and job	784	48,202	780	4		48,053	149	
Newspapers and periodicals	463	70,883	462		1	70,798		85
Chemicals and allied products:								
Chemicals	106	26,471	103	3		24,067	2,404	
Cottonseed oil, cake, and meal	104	6,677	101	3		6,490	187	
Druggists' preparations	50	8,930	50			8,930		
Explosives	31	4,569	27	4		4,380	189	
Fertilizers	175	8,957	152	23		7,182	1,775	
Paints and varnishes	363	17,680	355	8		17,317	363	
Petroleum refining	140	56,180	139	1		56,118	62	
Rayon and allied products	24	37,681	22	2		34,881	2,800	
Soap	109	17,274	107	2		16,951	323	
Rubber products:								
Rubber boots and shoes	9	10,400	8	1		10,123	277	
Rubber goods, other than boots, shoes, tires, and inner tubes	98	27,300	95	3		26,477	823	
Rubber tires and inner tubes	42	58,668	41	1		57,265	1,403	
Tobacco manufactures:								
Chewing and smoking tobacco and snuff	30	9,491	30			9,491		
Cigars and cigarettes	208	46,407	205	3		45,591	816	

Nonmanufacturing Industries

DATA concerning wage-rate changes occurring between September 15 and October 15, 1933, in 15 groups of nonmanufacturing industries are presented in the following table.

No changes in wage rates were reported in the anthracite-mining industry. Increases were reported in each of the remaining 14 industries and decreases were reported in 3 industries over the month interval. The average percents of increase reported were as follows: Canning and preserving, 24.8 percent; bituminous-coal mining, 22.1 percent; hotels, 20.4 percent; power and light, 17.7 percent; retail trade, 17 percent; metalliferous mining, 15.2 percent; laundries and wholesale trade, each 13.1 percent; crude-petroleum producing, 12.5 percent; quarrying and nonmetallic mining, 10.3 percent; electric-railroad and motor-bus operation and maintenance, 7.5 percent;

banks, brokerage, insurance, real estate, 5.3 percent; dyeing and cleaning, 5.1 percent; and telephone and telegraph, 4.8 percent. The average percents of decrease were: Quarrying and nonmetallic mining and retail trade, each 9.1 percent, and wholesale trade, 7.6 percent.

TABLE 2.—WAGE-RATE CHANGES IN NONMANUFACTURING INDUSTRIES DURING MONTH ENDING OCTOBER 15, 1933

Industrial group	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage-rate changes	Wage-rate increases	Wage-rate decreases	No wage-rate changes	Wage-rate increases	Wage-rate decreases
Anthracite mining	159	77,833	159			77,833		
Percent of total	100.0	100.0	100.0			100.0		
Bituminous-coal mining	1,514	210,835	1,160	354		144,742	66,093	
Percent of total	100.0	100.0	76.6	23.4		68.7	31.3	
Metalliferous mining	297	27,974	286	11		26,369	1,605	
Percent of total	100.0	100.0	96.3	3.7		94.3	5.7	
Quarrying and nonmetallic mining	1,202	36,894	1,179	21	2	35,305	1,516	73
Percent of total	100.0	100.0	98.1	1.7	0.2	95.7	4.1	0.2
Crude-petroleum producing	260	29,053	252	8		28,685	368	
Percent of total	100.0	100.0	96.9	3.1		98.7	1.3	
Telephone and telegraph	8,294	246,416	8,292	2		246,004	412	
Percent of total	100.0	100.0	100.0	(1)		99.8	0.2	
Power and light	3,132	204,268	3,106	26		199,680	4,588	
Percent of total	100.0	100.0	99.2	0.8		97.8	2.2	
Electric-railroad and motor-bus operation and maintenance	557	133,244	517	40		127,148	6,096	
Percent of total	100.0	100.0	92.8	7.2		95.4	4.6	
Wholesale trade	3,039	91,276	3,023	14	2	91,038	231	7
Percent of total	100.0	100.0	99.5	0.5	0.1	99.7	0.3	(1)
Retail trade	18,588	437,841	18,554	32	2	437,219	611	11
Percent of total	100.0	100.0	99.8	0.2	(1)	99.9	0.1	(1)
Hotels	2,706	140,128	2,695	11		139,726	402	
Percent of total	100.0	100.0	99.6	0.4		99.7	0.3	
Canning and preserving	888	96,778	883	5		96,678	100	
Percent of total	100.0	100.0	99.4	0.6		99.9	0.1	
Laundries	965	57,152	945	20		55,789	1,363	
Percent of total	100.0	100.0	97.9	2.1		97.6	2.4	
Dyeing and cleaning	377	11,863	372	5		11,460	403	
Percent of total	100.0	100.0	98.7	1.3		96.6	3.4	
Banks, brokerage, insurance, and real estate	4,569	178,777	4,564	5		178,671	106	
Percent of total	100.0	100.0	99.9	0.1		99.9	0.1	

[1] Less than one tenth of 1 percent.

Wage Changes Reported by Trade Unions and Municipalities since August 1933

CHANGES in the wages and hours of labor of trade-unionists and municipal employees, which occurred during the period August to November 1933 and which have been reported to the Bureau during the past month, are tabulated in the table following. The tabulation covers 40,364 workers, of whom 13,572 are reported to have gone on the 5-day week.

RECENT WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, AUGUST TO NOVEMBER 1933

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades:					
Bricklayers, masons, and plasterers:		*Per hour*	*Per hour*		
Schenectady, N.Y.	Aug. 14	$1.12½	$1.28	40	35
Westchester County, N.Y.	Oct. 1	1.50	1.20	40	40
Painters:					
New York, N.Y.	Sept. 28	1.40	1.28½	40	35
Okmulgee, Okla.	Sept. 1	.62½	1.25	44	30
Chauffeurs and teamsters, Everett, Wash.:		*Per day*	*Per day*		
Milk wagon drivers	Aug. 19	4.50	5.00	45	45
Clothing trades:					
Fur workers, New York City and Brooklyn, N.Y., Jersey City and Newark, N.J.:		*Per hour*	*Per hour*		
Rabbit fur dressers	Sept. 30	[1] 1.75	[1] 2.00	40	
Hat workers, Cleveland, Ohio	Sept. 22	[2]	[2]	[2]	[2]
Leather clothing workers, New York, N.Y., Carteret, Elizabeth, Newark, New Brunswick, Passaic, and Perth Amboy, N.J.	Aug. 11	[4]	[5]	44	40
Men's clothing workers:					
Cleveland, Ohio, tailors	Aug. —	[2]	[6]	44	36
New York, N.Y.:		*Per week*	*Per week*		
Bushelmen	Oct. 24	40.00	42.00	44	40
Custom tailors:					
Piece workers	Oct. 1	[7]	[8]	44	36
Week workers	do	[7]	[9]	44	36
Philadelphia, Pa., neckwear workers	Aug. 14	[10] 13.00	[10] 19.00	40–44	40
Millinery workers, Philadelphia, Pa.:		*Per hour*	*Per hour*		
Cutters, operators, blockers	Aug. 28	.70	1.00	40	40
Trimmers and drapers	do	.40	.60	40	40
Women's clothing workers:		*Per week*	*Per week*		
Chicago, Ill., dressmakers	Sept. 5	[2]	14.00–39.00	[11] 44	35
Cleveland, Ohio, dressmakers	Aug. 14	[2]	[9]	42	35
New York, N.Y., covered-button workers	Sept. 9	33.00	36.00	44	40
Philadelphia, Pa., dressmakers	Sept. 5	[4]	[4]	44	35–40
Coopers, Philadelphia, Pa.	Aug. 18	20.00-30.00	34.00	50–53	40
Iron and steel workers, Pueblo, Colo.:		*Per hour*	*Per hour*		
Steel workers, laborers	Aug. 1	.37	.40	48	40
Leather hand-bag workers:					
Chicago, Ill.:					
Cutters:		*Per week*	*Per week*		
First class	Sept. 11	[2]	28.50	[2]	40
Second class	do	[2]	22.50	[2]	40
Helpers	do	[2]	15.00	[2]	40
Pocketbook makers:					
First class	do	[2]	30.00	[2]	40
Second class	do	[2]	22.50	[2]	40
Helpers	do	[2]	13.00	[2]	40
Framers:					
First class	do	[2]	30.00	[2]	10
Second class	do	[2]	22.50	[2]	40
Purse and helpers	do	[2]	16.50	[2]	40
Operators:					
First class	do	[2]	28.50	[2]	40
Second class	do	[2]	25.00	[2]	40
Third class	do	[2]	18.00	[2]	40
Lining	do	[2]	15.00	[2]	40
Skivers:					
First class	do	[2]	28.50	[2]	40
Second class	do	[2]	18.00	[2]	40
General help, apprentices, and learners	do	[2]	12.00	[2]	40
Lumber, timber, and mill-work workers, Evansville, Ind.:		*Per hour*	*Per hour*		
Box-factory laborers	Oct. 16	.27	.33¾	50	40
Metal trades, Belleville, Ill.:					
Stove mounters	Nov. 15	.45–.60	.67	48	40
Printing and publishing trades:					
Compositors and machine operators:		*Per day*	*Per day*		
East Liverpool, Ohio	Oct. 1	6.45	7.00	40	40
Trenton, N.J.:		*Per week*	*Per weeek*		
Newspaper, day	Sept. 1	48.00	54.00	48	48
Newspaper, night	do	51.00	57.00	48	48

[1] Per hundred.
[2] Not reported.
[3] 25 percent increase.
[4] Piecework.
[5] 20 percent increase.
[6] 35 percent increase.
[7] Various.
[8] 30 to 40 percent increase.
[9] 15 percent increase.
[10] Average.
[11] Minimum.

RECENT WAGE CHANGES BY INDUSTRY, OCCUPATION, AND LOCALITY, AUGUST TO NOVEMBER 1933—Continued

Industry or occupation and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Street-railway workers, Topeka, Kans.:		*Per hour*	*Per hour*		
Bus operators	Sept. 1	$0.32	$0.40	63	48
Car operators	do	.40	.50	63	48
Other occupations:			*Per week*		
Hartford, Conn., window cleaners	do	[10].45	[11] 20.00	54	40
New York, N.Y., doll and toy workers	Oct. 1	[2]	[12]	40	40
Wheeling, W.Va., stogie makers	Aug. 21	[13]4.50-6.00	[13]6.00-8.00	40	40
Municipal employees:					
Waco, Tex., teachers	Sept. 18	[2]	[14]	35	35

[2] Not reported.
[10] Average.
[11] Minimum.
[12] 10 percent increase.
[13] Per thousand.
[14] 12 percent reduction.

Farm Wage and Labor Situation on October 1, 1933

THE general level of farm wages increased 10.2 percent between July 1 and October 1, 1933, this increase being slightly more than three times as large as the ordinary seasonal increase in farm wage rates, according to information contained in a press release of the United States Department of Agriculture dated October 11, 1933. The average daily rates, without board, on October 1, ranged from 70 cents in Alabama, Georgia, and South Carolina to $2.35 in Connecticut, Massachusetts, and Rhode Island, the average for the country as a whole being $1.25, as compared with $1.12 on July 1 of this year and $1.19 on October 1, 1932.

Table 1, reproduced from the press release mentioned above, gives data on farm wage rates and employment, for the country as a whole, on October 1, 1933, in comparison with the rates prevailing on July 1 of this year and on the 1st of July and October 1932, an additional comparison with the annual average for the period 1910–14 being given in the case of wage rates.

TABLE 1.—FARM WAGE RATES AND EMPLOYMENT IN OCTOBER 1933, AS COMPARED WITH JULY 1933 AND JULY AND OCTOBER 1932

Item	Annual average 1910–14	July 1932	October 1932	July 1933	October 1933
Farm wage index	100	87	84	78	86
Farm wage rates:					
Per month, with board	$20.41	$18.00	$17.29	$15.84	$17.19
Per month, without board	$29.09	$27.10	$26.36	$24.27	$25.89
Per day, with board	$1.10	$0.89	$0.87	$0.82	$0.91
Per day, without board	$1.43	$1.23	$1.19	$1.12	$1.25
Supply of and demand for farm labor:					
Supply (percent of normal)		123.6	123.6	116.2	111.4
Demand (percent of normal)		62.0	60.8	65.5	68.1
Supply (percent of demand)		199.2	203.3	177.5	163.6
Farm employment: [1]					
Family labor, persons per farm		2.49	2.31	2.37	2.25
Hired labor, do		1.09	1.09	1.01	1.05
Combined, do		3.58	3.40	3.38	3.30
Related indexes:					
Farm price index [2]	100	57	56	76	[3] 70
Ratio of farm prices to farm wages	100	66	67	97	81
Industrial wages [4]		171	177	165	[5] 176
Industrial employment [6]		57	62	69	[5] 73
Industrial pay rolls [6]		40	44	50	[5] 56

[1] On farms of crop reporters.
[2] As of the 15th of the month.
[3] September 1933—latest data available.
[4] Average weekly earnings, New York State factories, June 1914=100.
[5] August 1933—latest data available.
[6] Federal Reserve Board's indexes without seasonal adjustment, 1923-25=100.

Table 2 shows average farm wage rates per day and per month, with board and without board, by State, on October 1, 1933.

TABLE 2.—AVERAGE FARM WAGE RATES ON OCTOBER 1, 1933, BY STATE

Geographical division and State	Per month		Per day	
	With board	Without board	With board	Without board
New England				
Maine	$26.50	$40.00	$1.55	$2.05
New Hampshire	25.50	44.50	1.40	2.15
Vermont	23.25	38.75	1.30	1.85
Massachusetts	29.00	52.00	1.60	2.35
Rhode Island	36.75	58.75	1.90	2.35
Connecticut	29.00	49.25	1.70	2.35
Middle Atlantic				
New York	22.50	36.00	1.35	1.90
New Jersey	25.50	43.00	1.35	1.90
Pennsylvania	21.25	34.25	1.25	1.70
East North Central				
Ohio	17.50	27.50	1.05	1.45
Indiana	18.00	26.50	1.00	1.30
Illinois	18.75	26.25	1.00	1.35
Michigan	15.75	26.25	1.00	1.40
Wisconsin	17.25	27.50	.95	1.40
West North Central				
Minnesota	18.00	27.00	1.05	1.50
Iowa	18.00	25.25	1.00	1.35
Missouri	16.50	25.50	.85	1.10
North Dakota	18.50	28.25	1.05	1.60
South Dakota	15.75	24.75	.85	1.30
Nebraska	18.25	27.25	1.05	1.45
Kansas	17.75	27.50	1.05	1.40
South Atlantic				
Delaware	19.75	30.50	1.35	1.60
Maryland	20.25	31.00	1.15	1.55
Virginia	17.00	24.75	.85	1.10
West Virginia	18.50	28.00	.95	1.25
South Atlantic—Con.				
North Carolina	$13.75	$20.00	$0.70	$0.90
South Carolina	9.50	13.75	.50	.70
Georgia	9.00	14.00	.55	.70
Florida	14.00	21.25	.65	.90
East South Central				
Kentucky	14.50	21.00	.75	1.00
Tennessee	14.00	19.25	.70	.90
Alabama	9.25	13.25	.50	.70
Mississippi	10.50	15.25	.55	.75
West South Central				
Arkansas	13.00	18.75	.60	.85
Louisiana	12.50	18.00	.65	.85
Oklahoma	17.00	24.25	.90	1.25
Texas	17.75	25.00	.90	1.10
Mountain				
Montana	25.00	36.00	1.30	1.85
Idaho	27.00	38.75	1.45	1.80
Wyoming	25.50	37.75	1.20	1.75
Colorado	21.50	33.50	1.10	1.55
New Mexico	22.00	31.25	1.00	1.30
Arizona	33.75	38.00	1.25	1.40
Utah	30.50	43.75	1.45	1.80
Nevada	32.50	45.75	1.35	1.85
Pacific				
Washington	23.75	41.25	1.30	2.00
Oregon	25.50	40.00	1.25	1.75
California	33.00	53.00	1.40	2.15
United States	17.19	25.89	.91	1.25

Wages in the Paper and Wood-Pulp Industries in Finland, 1928 to 1933

THE table below, taken from the Bank of Finland Monthly Bulletin for September 1933 (p. 27), shows average hourly wages for men and women in the paper and wood-pulp trades in Finland for specified periods since 1928.

AVERAGE HOURLY WAGES IN THE PAPER AND WOOD-PULP INDUSTRIES IN FINLAND, 1928 TO 1933

[Conversions into United States currency on basis of mark at par=2.5 cents]

Period	Average hourly wages			
	Men		Women	
	Finnish currency	United States currency	Finnish currency	United States currency
	Marks	*Cents*	*Marks*	*Cents*
1928 (September–November)	7.42	18.6	3.67	9.2
1929 (September–November)	7.51	18.8	3.70	9.3
1930 (August)	7.70	19.3	3.79	9.5
1931 (August)	6.69	16.7	3.20	8.0
1932 (August)	6.16	15.4	3.02	7.6
1933 (March)	6.39	16.0	3.12	7.8

Wages in Tokyo, June 1933

THE daily wages of Tokyo workers in June 1933 in various occupations are shown in the following table, based on a tabulation in the June 1933 issue of the Monthly Report on Current Economic Conditions published by the Tokyo Chamber of Commerce and Industry:

DAILY WAGES IN VARIOUS INDUSTRIES, TOKYO, JUNE 1933

[Conversions into United States currency on basis of yen at par=50 cents. Average exchange rate for June 1933 was 25.75 cents]

Occupation	Daily wage		Index numbers (June 1932=100)	Occupation	Daily wage		Index numbers (June 1932=100)
	Japanese currency	U.S. currency			Japanese currency	U.S. currency	
	Yen				*Yen*		
Textile industry:				Food industry—Continued			
Silk reelers, female	0.69	$0.35	103.0	Sugar-refinery workers	2.16	$1.08	90.4
Cotton spinners, female	.84	.42	96.6	Confectioners (Japanese cake)	1.75	.88	100.6
Silk throwers, female	.94	.47	114.6	Canners	1.65	.83	101.9
Cotton weavers, machine, female	.77	.39	96.2	Wearing apparel industry:			
Silk weavers, hand, female	1.38	.69	100.7	Tailors (for European dress)	2.00	1.00	81.3
Hosiery knitters, male	2.00	1.00	88.9	Shoemakers	2.56	1.28	116.9
Hosiery knitters, female	1.00	.50	80.0	Clogmakers	1.40	.70	100.0
Metal industry:				Building industry:			
Lathemen	5.23	2.62	135.8	Carpenters	1.95	.98	96.5
Finishers	5.21	2.61	155.5	Plasterers	2.43	1.22	102.5
Founders	3.07	1.54	101.7	Stonemasons	2.83	1.42	96.6
Blacksmiths	4.19	2.10	135.6	Bricklayers	2.67	1.34	100.0
Wooden-pattern makers	4.42	2.21	126.6	Roofing-tile layers	2.75	1.38	105.8
Stone, glass, and clay products:				Painters	2.29	1.15	99.1
Cement makers	2.40	1.20	101.7	Woodworking industry:			
Glassmakers	2.72	1.36	112.4	Sawyers (machine)	1.74	.87	100.0
Potters	1.87	.94	105.6	Joiners	1.85	.93	100.0
Tile makers (shape)	1.40	.70	100.0	Lacquerers	2.05	1.03	104.1
Chemical industry:				Printing industry:			
Makers of chemicals	2.14	1.07	105.4	Compositors	3.00	1.50	94.6
Matchmakers, male	.90	.45	78.3	Bookbinders	2.31	1.16	104.1
Matchmakers, female	.65	.33	100.0	Day laborers:			
Oil pressers	1.55	.78	102.6	Stevedores	2.55	1.28	113.3
Paper industry:				Day laborers, male	1.51	.76	107.9
Makers of Japanese paper	1.50	.75	100.0	Day laborers, female	.86	.43	107.5
Makers of printing paper	1.81	.91	101.1	Fishermen	1.46	.73	86.4
Leather industry: Leather makers	3.23	1.62	108.8	Domestic service:			
Food industry:				Servants, male	.80	.40	96.4
Flour millers	1.95	.98	103.2	Servants, female	.78	.39	101.3
Sake-brewery workers	1.30	.65	100.0	Other industries:			
Soy-brewery workers	2.10	1.05	100.0	Rope makers	1.48	.74	102.1
				Mat makers (Tatami)	2.33	1.17	97.1

Wages in Factories in Chosen (Korea), 1932

THE results of a survey of wages in 1932 in factories in Chosen (Korea), employing 50 or more hands were published in the May 1933 issue of the Chosa Geppo (Monthly Statistical Review). These findings were forwarded in a report of June 14, 1933, from C. H. Stephan, American vice consul at Seoul, Chosen, and are given in part below.

In 1932 the factories in Chosen employing 50 or more persons numbered 253, representing 36 different industries and 57,153 wage earners. Table 1 shows the average daily wages and hours of these workers, by nationality and by sex.

TABLE 1.—AVERAGE DAILY WAGES AND HOURS OF FACTORY WORKERS[1] IN CHOSEN, 1932, BY NATIONALITY

[Conversions into U.S. currency on basis of yen=50 cents. Average exchange rate for 1932 was 28.11 cents]

Nationality	Number of hands	Average wage		Average hours
		Japanese currency	U.S. currency	
		Yen	*Cents*	
Japanese:				
Males:				
Adults	5,359	1.94	97.0	8.7
Minors	103	.82	41.0	8.4
Females, adults	389	.94	47.0	9.8
Koreans:				
Males:				
Adults	27,305	.90	45.0	10.0
Minors	1,115	.38	19.0	10.3
Females:				
Adults	18,523	.55	27.5	10.7
Minors	2,400	.31	15.5	11.0
Chinese:				
Males:				
Adults	1,937	.70	35.0	10.4
Minors	22	.50	25.0	10.2
All workers:				
Males:				
Adults	34,601	1.05	52.5	9.8
Minors	1,240	.41	20.5	10.1
Females:				
Adults	18,912	.55	27.5	10.7
Minors	2,400	.31	15.5	11.0

[1] In establishments employing 50 or more workers.

The average wages and hours of Japanese, Korean, and Chinese adult male workers in the factories covered are given in table 2.

TABLE 2.—AVERAGE DAILY WAGES AND HOURS OF ADULT MALE WORKERS [1] IN CHOSEN, 1932, BY INDUSTRY AND NATIONALITY

[Conversions into United States currency on basis of yen at par=50 cents. Average exchange rate in 1932 was 28.11 cents]

Industry	Japanese				Korean				Chinese			
	Number of hands	Average daily wages		Hours	Number of hands	Average daily wages		Hours	Number of hands	Average daily wages		Hours
		Japanese currency	U.S. currency			Japanese currency	U.S. currency			Japanese currency	U.S. currency	
		Yen				*Yen*				*Yen*		
Arms	125	2.20	$1.10	10.0	317	1.05	$0.53	10.0				
Brewing	5	3.00	1.50	10.0	50	.80	.40	10.0				
Brickmaking					227	.76	.38	10.0				
Briquettes	31	1.82	.91	10.0	227	.78	.39	10.0				
Canned foods	29	1.17	.59	10.0	108	.48	.24	10.0				
Casting	2	2.50	1.25	10.0	38	1.35	.68	10.0				
Cement	269	2.40	1.20	8.0	797	.84	.42	8.0				
Ceramic ware	6	2.03	1.02	10.3	382	.84	.42	10.3	70	0.66	$0.33	11.6
Coal sorting	41	1.87	.94	10.3	5,245	.73	.37	10.3	434	.72	.36	10.3
Confectionery	10	1.50	.75	10.0	46	.61	.31	10.0				
Cotton ginning	7	.91	.46	10.6	377	.68	.34	10.9				
Electricity and gas	35	1.80	.90	9.5	104	1.10	.55	8.8				
Fertilizers	3,230	1.78	.89	8.0	1,437	.99	.50	8.2				
Glassware	1	3.00	1.50	10.0	10	1.30	.65	10.0				
House fittings	9	1.53	.77	10.3	49	.63	.32	10.3				
Iron foundry	202	2.25	1.13	10.0	584	.79	.40	10.0	31	1.15	.58	10.0
Iron manufactures	61	2.60	1.30	9.8	219	1.34	.67	9.7	8	.92	.46	9.4
Leather	9	2.70	1.35	8.0	200	1.20	.60	8.0				
Lumbering	55	1.75	.88	11.1	1,006	.60	.30	10.8	955	.53	.27	10.7
Matches	1	1.13	.57	10.0	159	.88	.44	10.0	37	.50	.25	10.0
Netmaking	7	1.50	1.25	10.1	95	.71	.36	10.6				
Oils	1	1.61	.81	12.0	70	1.05	.53	11.0				
Paper	72	2.09	1.05	11.5	165	.72	.36	11.5				
Printing	98	2.38	1.19	9.3	1,343	1.45	.73	9.4				
Ruling	115	1.13	.57	11.0	954	.75	.38	11.2	1	1.40	.70	11.0
Refining (minerals)	47	2.08	1.04	9.8	4,910	.89	.45	9.3	331	1.06	.53	9.5
Rice cleaning	23	1.57	.79	10.8	2,944	.79	.40	11.3	15	.70	.35	12.0
Rubber manufactures	21	1.50	.75	10.1	1,434	.84	.42	10.4	4	1.57	.79	11.0
Shipbuilding	80	2.21	1.11	10.5	68	1.20	.60	10.3				
Socks (stockings)					144	.70	.35	11.7				
Sugar	27	2.31	1.16	11.0	70	.95	.48	11.0				
Tailoring	15	1.87	.94	9.5	184	.95	.48	10.0				
Tobacco manufacturing	96	2.11	1.06	10.0	958	1.08	.54	10.0				
Vehicles	592	2.39	1.20	9.6	1,690	1.50	.75	9.8	4	1.28	.64	10.0
Weaving	33	2.34	1.17	11.0	645	.80	.40	11.1				
Weights and measures	4	2.50	1.25	9.4	49	1.15	.58	9.4				

[1] In establishments employing 50 or more workers.

TREND OF EMPLOYMENT

Trend of Employment, October 1933

THE Bureau of Labor Statistics of the United States Department of Labor presents herewith data compiled from pay-roll reports supplied by representative establishments in 89 of the principal manufacturing industries of the country and 16 nonmanufacturing industries, covering the pay period ending nearest the 15th of the month. Additional information is presented concerning employment on public-works projects, public roads, the executive civil service, and class I steam railroads.

Employment in Selected Manufacturing Industries in October 1933

Comparison of Employment and Pay-Roll Totals in October 1933 with September 1933 and October 1932

EMPLOYMENT in manufacturing industries increased 0.1 percent in October 1933 as compared with September 1933 and pay rolls increased 0.6 percent over the month interval, according to reports received from representative establishments in 89 important manufacturing industries of the country. Comparing the changes in employment and pay rolls over the year interval, it is seen that the level of employment in October 1933 is 23.5 percent above the level of October 1932, and pay rolls in October 1933 showed a gain of 34.3 percent over the year interval.

The index of employment in October 1933 was 74, as compared with 73.9 in September 1933, 71.6 in August 1933, and 59.9 in October 1932; the pay-roll index in October 1933 was 53.6, as compared with 53.3 in September 1933, 51.9 in August 1933, and 39.9 in October 1932. The 12-month average for 1926 equals 100.

These changes in employment and pay rolls in October 1933 are based on reports supplied by 18,602 establishments in 89 of the principal manufacturing industries of the United States. These establishments reported 3,358,960 employees on their pay rolls during the pay period ending nearest October 15 whose combined weekly earnings were $63,195,865. The employment reports received from these cooperating establishments cover approximately 50 percent of the total wage earners in all manufacturing industries of the country.

The increases in employment and pay rolls between September and October 1933, while small, indicate a continuation of the gains in employment and pay roll which occurred during the preceding 6-month interval. The fact that 56 industries, or nearly two thirds of the 89 manufacturing industries surveyed, reported increased employment in October would give reason to expect a greater expansion

over the month interval than was shown. Those increases, however, were practically offset by the decreases reported in the remaining 33 industries. Among the decreases which largely affected the final result were losses of over 10 percent in employment in automobiles and a similar decline in silk goods where labor difficulties prevailed throughout the period covered. Smaller declines were recorded in iron and steel, boots and shoes, woolen and worsted goods, steam fittings, hardware, plumbers' supplies, and men's clothing, and seasonal shrinkage in the brick, cement, beverage, and ice-cream industries.

The average percentage of change in employment between September and October over the preceding 10-year period has been a decrease of less than one tenth of 1 percent and pay rolls have shown an average gain of 2 percent over this interval. The small percentage gain in employment in October of the present year therefore indicates a change slightly better than average, while the pay-roll increase of 0.6 percent in October of the current year is appreciably less than the average increase shown in October over the preceding 10-year interval.

The gain of 0.1 percent in employment in manufacturing industries between September and October 1933 represents an estimated gain of approximately 7,000 workers over the month interval, and the increase of 0.6 percent in factory pay rolls indicates that the total weekly pay rolls of factory employees in October were approximately two thirds of a million dollars greater than the total weekly pay rolls disbursed in September in all manufacturing industries combined.

The index (74) of factory employment in October shows a gain of 34.3 percent over the employment index (55.1) of March 1933, which was the low point of employment recorded in manufacturing industries. The pay-roll index (53.6) in October is 60.5 percent above the level of the March pay-roll index of 33.4. Measured by these percentage gains there was an increase in employment in manufacturing industries of approximately 1,700,000 workers between March and October 1933 and an increase of $44,500,000 in weekly wages in October over the total amount paid in 1 week in March 1933.

The most pronounced increases in employment between September and October were seasonal gains in the beet-sugar and radio industries. The beet-sugar industry, marking the beginning of its active season, reported a gain of 171.1 percent in employment and the radio industry reported an increase of 21.6 percent. The locomotive industry showed a gain of over 20 percent in number of workers and the cottonseed oil-cake-meal and fertilizer industries reported seasonal gains of 15.6 percent and 10.6 percent, respectively. Fifteen industries reported gains ranging from 5 percent to 9.8 percent, among which were the agricultural implement, confectionery, machine tool, jewelry, stove, shirt and collar, and cigar and cigarette industries. Other industries of major importance reporting increased employment over the month interval were petroleum refining, electrical machinery, shipbuilding, chemicals, foundries, sawmills, furniture, women's clothing, knit goods, and cotton goods.

Seven of the 14 groups into which the 89 manufacturing industries are classified reported increased employment between September and October. The tobacco group reported the largest percentage gain over the month, 4.6 percent, both the cigar and cigarette and the chewing and smoking tobacco industries reporting increases. The machin-

ery group reported an increase of 3.7 percent, substantial gains being shown in radios, agricultural implements, machine tools, typewriters, electrical machinery, and foundries. The food group reported a gain of 3.6 percent, the beet sugar, confectionery, cane-sugar refining, and flour industries reporting the largest percentage increases. The gain of 2.9 percent in employment in the chemical group was due largely to seasonal increases in fertilizers and cottonseed oil-cake-meal combined with smaller increases in the chemical, petroleum refining, and explosive industries. The paper group reported a gain of 2 percent. The nonferrous metal and the lumber groups reported increases in employment of 1.7 and 1.4 percent, respectively.

The most pronounced decline in employment (7.9 percent) was reported in the transportation group in which the decrease of 10.4 percent in the automobile industry contributed largely to the decline reported in the group. The stone, clay, and glass products group reported a decrease of 2.3 percent, seasonal decreases in the cement and brick industries offsetting small gains reported in the glass, marble, and pottery industries. The decline in employment in 8 of the 13 industries comprising the iron and steel group was reflected in the loss of 2.1 percent in employment in this group over the month interval. The iron and steel industry reported 2.2 percent fewer employees in October than September and larger decreases were shown in the tin can, forging, steam fitting, plumbers' supplies, and hardware industries. The decreases in both the boot and shoe and the leather industries resulted in a decrease of 1.9 percent in the leather group. The decreases in the remaining 3 groups (textiles, rubber, and railroad repair shops) were 0.7 percent or less.

Strikes continued to affect employment in factories in a number of localities. A large number of silk-goods plants reported decreased employment due to strikes in New Jersey and Pennsylvania. These strikes affected a number of plants in the dyeing and finishing textile industry which were forced to close or operate part time due to lack of material. Strikes in establishments in the furniture, flour, knit goods, and leather industries were also reported over the month interval.

A comparison of the indexes of employment and pay roll in manufacturing industries in October 1933 with October 1932 shows that all but 8 of the 89 industries surveyed reported increased employment over the year interval and a similar number reported increased pay-roll totals. Decreases in both items were reported in 6 industries—dyeing and finishing textiles, corsets, millinery, electric-railroad repair shops, cement, and marble-granite-slate. The newspaper and the book and job printing industries each reported small losses in pay rolls coupled with increased employment over the year interval, and the men's furnishings and cigar and cigarette industries reported losses in employment coupled with increased pay-roll totals.

In table 1, which follows, are shown the number of identical establishments reporting in both September and October 1933 in the 89 manufacturing industries, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest October 15, the amount of their earnings for 1 week in October, the percents of change over the month and year intervals, and the indexes of employment and pay roll in October 1933.

The monthly percents of change for each of the 89 separate industries are computed by direct comparison of the total number of employees and of the amount of weekly pay roll reported in identical establishments for the 2 months considered. The percents of change over the month interval in the several groups and in the total of the 89 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries. The percents of change over the year interval in the separate industries, in the groups and in the totals, are computed from the index numbers of employment and pay-roll totals.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN OCTOBER 1933 WITH SEPTEMBER 1933 AND OCTOBER 1932

Industry	Establishments reporting in both September and October	Employment			Pay-roll totals			Index numbers October 1933 (average 1926=100)	
		Number on pay roll October 1933	Percent of change		Amount of pay roll (1 week) October 1933	Percent of change			
			September to October 1933	October 1932 to October 1933		September to October 1933	October 1932 to October 1933	Employment	Pay-roll totals
Food and kindred products	**3,145**	**322,300**	**+3.6**	**+19.1**	**$6,528,685**	**+2.0**	**+17.2**	**103.7**	**81.7**
Baking	1,030	73,420	+1.2	+10.0	1,599,105	+.4	+5.8	89.0	72.5
Beverages	413	26,154	−6.5	+107.9	701,269	−9.8	+131.3	150.9	127.7
Butter	307	5,966	−1.2	+9.5	121,301	+1.5	+2.8	106.0	80.7
Confectionery	302	43,619	+8.1	+5.2	644,122	+5.9	+8.8	102.4	80.1
Flour	417	17,646	+2.4	+13.6	362,281	+6.4	+4.1	96.2	75.3
Ice cream	356	11,377	−8.4	+12.1	284,990	−5.9	+4.5	76.8	57.5
Slaughtering and meat packing	244	112,501	−.8	+26.0	2,218,244	−.6	+22.9	110.5	87.0
Sugar, beet	63	21,913	+171.1	+16.3	398,033	+143.9	+29.7	248.8	163.0
Sugar refining, cane	13	9,704	+7.6	+19.8	199,340	+4.4	+5.1	93.2	68.0
Textiles and their products	**3,316**	**773,495**	**−.7**	**+17.7**	**11,820,893**	**−1.7**	**+29.9**	**87.9**	**67.7**
Fabrics	**1,965**	**628,243**	**−.7**	**+23.0**	**9,324,044**	**−.3**	**+36.0**	**93.6**	**74.4**
Carpets and rugs	27	16,632	+5.5	+52.8	322,810	+7.3	+89.9	82.8	65.7
Cotton goods	689	309,034	+1.2	+35.2	4,046,645	+1.0	+61.2	102.6	86.4
Cotton small wares	116	11,621	−2.2	+23.0	183,573	−1.3	+25.9	99.6	77.4
Dyeing and finishing textiles	153	33,600	−2.3	−2.8	610,731	+2.5	−6.2	75.7	54.0
Hats, fur-felt	36	6,248	−9.4	+3.6	140,024	−9.7	+11.4	76.8	57.6
Knit goods	466	124,945	+1.6	+11.3	1,974,332	+5.5	+19.2	96.6	79.5
Silk and rayon goods	238	50,798	−10.1	+.5	762,239	−7.2	+12.5	65.2	50.5
Woolen and worsted goods	240	75,365	−3.1	+29.5	1,283,690	−4.9	+37.7	99.6	78.1
Wearing apparel	**1,351**	**145,252**	**−.4**	**+3.9**	**2,496,849**	**−5.2**	**+16.0**	**74.3**	**54.5**
Clothing, men's	396	70,604	−2.1	+8.7	1,215,149	−2.0	+26.0	77.1	55.3
Clothing, women's	593	34,458	+1.6	+1.6	693,297	−7.5	+13.3	71.7	54.5
Corsets and allied garments	32	5,453	−9.7	−5.4	84,166	−8.5	−5.8	95.5	80.6
Men's furnishings	73	7,242	+7.1	−2.5	102,798	+16.0	+7.7	67.1	48.9
Millinery	135	8,845	−3.6	−9.3	151,447	−23.5	−12.0	69.6	43.9
Shirts and collars	122	18,650	+5.5	+15.0	249,992	+15.0	+49.5	73.4	62.8
Iron and steel and their products, not including machinery	**1,419**	**417,746**	**−2.1**	**+37.9**	**7,939,979**	**+.4**	**+77.8**	**73.2**	**47.3**
Bolts, nuts, washers, and rivets	79	14,406	−2.1	+42.5	263,139	+.2	+75.0	88.8	58.8
Cast-iron pipe	44	6,630	+3.1	+18.6	85,221	+3.9	+27.5	35.1	19.0
Cutlery (not including silver and plated cutlery) and edge tools	132	11,292	+4.8	+22.7	208,291	+6.4	+24.0	79.0	54.3
Forgings, iron and steel	66	7,214	−7.9	+38.9	134,941	+1.7	+91.5	76.7	49.6
Hardware	99	28,269	−6.3	+12.4	462,411	−7.8	+25.9	55.3	30.6
Iron and steel	206	254,363	−2.2	+44.2	5,012,991	+.4	+113.4	76.4	49.5
Plumbers' supplies	73	9,314	−6.9	+59.4	149,430	−12.8	+62.0	81.6	46.5
Steam and hot-water heating apparatus and steam fittings	98	16,843	−7.6	+19.6	302,493	−8.3	+17.8	44.6	27.8

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN OCTOBER 1933 WITH SEPTEMBER 1933 AND OCTOBER 1932—Continued

Industry	Establishments reporting in both September and October	Employment			Pay-roll totals			Index numbers October 1933 (average 1926=100)	
		Number on pay roll October 1933	Percent of change		Amount of pay roll (1 week) October 1933	Percent of change			
			September to October 1933	October 1932 to October 1933		September to October 1933	October 1932 to October 1933	Employment	Pay-roll totals
Iron and steel and their products, not including machinery—Continued.									
Stoves	162	25,346	+5.6	+49.3	$500,488	+12.4	+51.6	82.7	56.4
Structural and ornamental metalwork	202	17,045	+1.2	+24.3	314,477	+6.2	+39.8	51.2	33.0
Tin cans and other tinware	60	10,238	−8.0	+11.8	191,985	−7.7	+8.6	85.9	51.5
Tools (not including edge tools, machine tools, files, and saws)	127	8,950	+3.6	+38.0	163,327	+5.0	+53.8	83.1	54.0
Wirework	71	7,836	−.5	+40.1	150,785	+1.7	+61.3	128.2	103.9
Machinery, not including transportation equipment	**1,826**	**359,680**	**+3.7**	**+40.4**	**7,207,029**	**+6.9**	**+60.9**	**64.0**	**43.6**
Agricultural implements	79	9,118	+8.5	+94.3	162,663	+14.2	+122.1	37.7	31.1
Cash registers, adding machines, and calculating machines	35	16,366	+2.4	+34.3	416,492	+4.6	+44.0	85.7	67.4
Electrical machinery, apparatus and supplies	291	112,500	+3.6	+27.6	2,278,501	+4.8	+43.0	62.9	46.9
Engines, turbines, tractors, and water wheels	92	21,167	+.4	+39.2	440,053	+6.7	+46.2	55.4	36.4
Foundry and machine-shop products	1,075	125,024	+2.0	+37.3	2,382,122	+4.8	+62.2	60.4	37.8
Machine tools	143	15,601	+7.9	+62.2	329,929	+9.9	+93.6	48.0	33.1
Radios and phonographs	43	37,148	+21.6	+103.5	725,960	+37.3	+99.0	162.4	125.2
Textile machinery and parts	52	10,768	−.9	+67.9	235,143	+.3	+103.8	90.0	69.3
Typewriters and supplies	16	11,988	+6.7	+45.3	236,166	+11.4	+101.6	81.2	61.3
Nonferrous metals and their products	**632**	**108,188**	**+1.7**	**+35.2**	**2,022,181**	**+4.9**	**+38.9**	**73.0**	**51.4**
Aluminum manufactures	27	6,949	−1.5	+34.6	124,245	+4.6	+47.8	64.2	43.6
Brass, bronze, and copper products	212	39,185	−.9	+41.7	736,801	−2.9	+57.1	72.4	49.5
Clocks and watches and time-recording devices	27	9,606	+5.4	+26.4	177,741	+13.1	+39.2	52.6	43.7
Jewelry	130	9,487	+5.6	+8.6	188,516	+11.0	+6.4	47.8	34.7
Lighting equipment	52	3,642	+2.4	+26.3	64,388	+1.4	+26.9	84.1	59.4
Silverware and plated ware	56	9,247	+9.8	+21.7	191,859	+20.0	+21.3	77.5	55.2
Smelting and refining—copper, lead, and zinc	42	14,140	+2.3	+46.8	267,831	+3.8	+42.2	86.3	55.9
Stamped and enameled ware	86	15,932	+.9	+37.6	270,800	+6.1	+39.4	83.1	55.9
Transportation equipment	**424**	**270,106**	**−7.9**	**+44.1**	**5,697,293**	**−10.4**	**+66.8**	**56.9**	**41.2**
Aircraft	25	6,445	+3.6	+48.3	174,599	+7.3	+27.9	247.3	222.6
Automobiles	239	221,612	−10.4	+52.4	4,641,844	−13.3	+85.9	58.2	42.2
Cars, electric and steam railroad	49	8,876	−2.1	+1.4	177,037	+5.0	+1.6	21.4	12.6
Locomotives	11	2,851	+20.9	+47.1	54,008	+28.6	+40.4	20.3	13.2
Shipbuilding	100	30,322	+2.8	+16.8	649,805	+3.6	+10.3	79.1	57.8
Railroad repair shops	**920**	**96,065**	**−.2**	**+4.9**	**2,435,699**	**+8.0**	**+23.5**	**51.0**	**44.7**
Electric railroad	380	19,631	+1.1	−3.5	487,588	+2.4	−3.5	63.2	50.0
Steam railroad	540	76,434	−.3	+5.9	1,948,111	+8.5	+26.6	50.1	44.3
Lumber and allied products	**1,610**	**167,364**	**+1.4**	**+32.8**	**2,541,181**	**+1.5**	**+49.5**	**51.8**	**33.2**
Furniture	468	60,655	+1.8	+32.4	975,283	+4.2	+45.3	64.1	41.7
Lumber:									
Millwork	494	21,348	−3.0	+17.8	320,347	−2.8	+22.4	40.3	24.6
Sawmills	621	83,438	+1.8	+35.7	1,219,705	+.4	+62.3	49.0	31.0
Turpentine and rosin	27	1,923	+6.5	+42.9	25,846	+11.7	+48.4	64.6	55.8

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING ESTABLISHMENTS IN OCTOBER 1933 WITH SEPTEMBER 1933 AND OCTOBER 1932—Continued

Industry	Establishments reporting in both September and October	Employment			Pay-roll totals			Index numbers October 1933 (average 1926=100)	
		Number on pay roll October 1933	Percent of change		Amount of pay roll (1 week) October 1933	Percent of change			
			September to October 1933	October 1932 to October 1933		September to October 1933	October 1932 to October 1933	Employment	Pay-roll totals
Stone, clay, and glass products	**1,325**	**105,477**	**−2.3**	**+15.9**	**$1,831,971**	**+.9**	**+19.3**	**51.7**	**32.8**
Brick, tile, and terra cotta	662	20,469	−8.5	+9.4	257,175	−9.4	+13.1	31.5	14.7
Cement	131	13,119	−13.7	−11.4	240,984	−4.5	−9.1	38.0	22.9
Glass	177	46,900	+1.0	+41.4	874,310	+2.0	+51.3	80.6	59.6
Marble, granite, slate, and other products	235	5,982	+1.8	−12.4	117,204	+4.3	−22.7	45.4	27.3
Pottery	120	19,007	+3.8	+24.1	342,298	+7.9	+33.9	74.7	50.2
Leather and its manufactures	**506**	**153,033**	**−1.9**	**+7.7**	**2,646,616**	**−6.6**	**+16.8**	**84.1**	**62.0**
Boots and shoes	348	120,806	−2.2	+3.0	2,006,690	−9.1	+11.4	82.5	58.5
Leather	158	32,227	−1.2	+29.5	639,926	+.7	+33.8	90.5	74.1
Paper and printing	**1,990**	**248,821**	**+2.0**	**+12.8**	**5,793,681**	**+1.9**	**+5.8**	**90.5**	**70.6**
Boxes, paper	327	27,785	+1.8	+25.8	486,336	−.4	+19.1	92.6	76.0
Paper and pulp	416	101,951	+1.0	+26.1	1,899,065	−.1	+27.5	94.8	66.3
Printing and publishing:									
Book and job	784	48,202	+1.6	+1.2	1,212,937	+2.1	−2.9	73.5	57.8
Newspapers and periodicals	463	70,883	+3.3	+6.9	2,195,343	+3.4	−.1	104.1	85.3
Chemicals and allied products	**1,102**	**184,419**	**+2.9**	**+30.7**	**4,015,109**	**+4.9**	**+27.8**	**98.7**	**77.8**
Chemicals	106	26,471	+2.0	+42.7	632,490	+6.4	+41.0	120.9	87.0
Cottonseed—oil, cake, and meal	104	6,677	+15.6	+16.3	71,476	+21.1	+34.3	62.9	60.3
Druggists' preparations	50	8,930	+5.0	+12.7	181,208	+6.5	+14.1	80.8	80.3
Explosives	31	4,569	+2.1	+39.9	97,945	+7.9	+51.2	105.9	77.4
Fertilizers	175	8,957	+10.6	+59.9	115,577	+12.9	+59.5	72.1	48.0
Paints and varnishes	363	17,680	−.1	+17.9	371,345	+3.0	+11.7	80.4	61.0
Petroleum refining	140	56,180	+3.8	+17.6	1,517,153	+3.9	+14.6	72.7	59.8
Rayon and allied products	24	37,681	+.3	+41.3	668,793	+2.4	+45.7	197.3	172.4
Soap	109	17,274	+.6	+20.4	359,122	+.8	+9.7	116.7	92.6
Rubber products	**149**	**96,368**	**−.3**	**+39.4**	**1,934,586**	**+1.9**	**+52.8**	**89.1**	**62.8**
Rubber boots and shoes	9	10,400	+1.9	+31.9	195,221	+4.0	+55.4	68.6	61.7
Rubber goods, other than boots, shoes, tires, and inner tubes	98	27,300	+1.9	+43.4	492,991	+7.5	+35.0	120.9	82.6
Rubber tires and inner tubes	42	58,668	−2.1	+39.3	1,246,374	−1.3	+62.9	82.2	56.2
Tobacco manufactures	**238**	**55,898**	**+4.6**	**−2.2**	**780,962**	**+6.1**	**+5.7**	**72.3**	**59.0**
Chewing and smoking tobacco and snuff	30	9,491	+2.4	+2.1	130,914	(1)	+5.0	91.7	77.0
Cigars and cigarettes	208	46,407	+5.1	−2.9	650,048	+7.2	+5.8	69.8	56.8
Total, 89 industries	**18,602**	**3,358,960**	**+.1**	**+23.5**	**$63,195,865**	**+.6**	**+34.3**	**74.0**	**53.6**

[1] Less than one tenth of 1 percent.

Per Capita Earnings in Manufacturing Industries

PER capita weekly earnings in October 1933 for each of the 89 manufacturing industries surveyed by the Bureau of Labor Statistics and for all industries combined, together with the percents of change in October 1933 as compared with September 1933 and October 1932, are shown in table 2.

These earnings must not be confused with full-time weekly rates of wages. They are per capita weekly earnings, computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN **MANUFACTURING** INDUSTRIES IN OCTOBER 1933 AND COMPARISON WITH SEPTEMBER 1933 AND OCTOBER 1932

Industry	Per capita weekly earnings in October 1933	Percent of change compared with—	
		September 1933	October 1932
Food and kindred products:			
Baking	$21.78	−0.8	−3.6
Beverages	26.81	−3.6	+11.2
Butter	20.33	+2.8	−6.0
Confectionery	14.77	−2.0	+3.3
Flour	20.53	+3.9	−8.0
Ice cream	25.05	+2.8	−6.4
Slaughtering and meat packing	19.72	+.2	−2.4
Sugar, beet	18.16	−10.1	+11.4
Sugar refining, cane	20.54	−3.0	−11.9
Textiles and their products:			
Fabrics:			
Carpets and rugs	19.41	+1.7	+23.8
Cotton goods	13.09	−.2	+18.4
Cotton small wares	15.80	+.9	+2.0
Dyeing and finishing textiles	18.18	+4.8	−3.4
Hats, fur-felt	22.41	−.3	+7.6
Knit goods	15.80	+3.8	+7.1
Silk and rayon goods	15.01	+3.2	+12.0
Woolen and worsted goods	17.03	−1.9	+5.8
Wearing apparel:			
Clothing, men's	17.21	+.2	+15.9
Clothing, women's	20.12	−8.9	+11.9
Corsets and allied garments	15.43	+1.2	−.2
Men's furnishings	14.19	+8.3	+10.4
Millinery	17.12	−20.6	−3.1
Shirts and collars	13.40	+9.0	+29.6
Iron and steel and their products, not including machinery:			
Bolts, nuts, washers, and rivets	18.27	+2.4	+22.6
Cast-iron pipe	12.85	+.8	+7.4
Cutlery (not including silver and plated cutlery) and edge tools	18.45	+1.5	+.7
Forgings, iron and steel	18.71	+10.4	+38.1
Hardware	16.36	−1.6	+12.0
Iron and steel	19.71	+2.7	+48.4
Plumbers' supplies	16.04	−6.4	+1.7
Steam and hot-water heating apparatus and steam fittings	17.96	−.8	−1.4
Stoves	19.75	+6.5	+1.8
Structural and ornamental metal work	18.45	+4.9	+12.6
Tin cans and other tinware	18.75	+.3	−3.1
Tools (not including edge tools, machine tools, files, and saws)	18.25	+1.3	+11.5
Wirework	19.24	+2.2	+15.3
Machinery, not including transportation equipment:			
Agricultural implements	17.84	+5.2	+13.7
Cash registers, adding machines, and calculating machines	25.45	+2.2	+7.1
Electrical machinery, apparatus, and supplies	20.25	+1.1	+12.3
Engines, turbines, tractors, and water wheels	20.79	+6.3	+5.1
Foundry and machine-shop products	19.05	+2.7	+18.1
Machine tools	21.15	+1.9	+18.8
Radios and phonographs	19.54	+12.9	−2.2
Textile machinery and parts	21.84	+1.3	+21.3
Typewriters and supplies	19.70	+4.5	+39.1
Nonferrous metals and their products:			
Aluminum manufactures	17.88	+6.2	+9.6
Brass, bronze, and copper products	18.80	−2.9	+11.0
Clocks and watches and time-recording devices	18.50	+7.3	+10.1
Jewelry	19.87	+5.2	−2.0
Lighting equipment	17.68	−1.0	+.4
Silverware and plated ware	20.75	+9.3	−.3
Smelting and refining—copper, lead, and zinc	18.94	+1.4	−2.9
Stamped and enameled ware	17.00	+5.1	+1.3
Transportation equipment:			
Aircraft	27.09	+3.6	−13.7
Automobiles	20.95	−3.2	+22.3
Cars, electric and steam railroad	19.95	+7.3	+.4
Locomotives	18.94	+6.4	−5.4
Shipbuilding	21.43	+.8	−5.5
Railroad repair shops:			
Electric railroad	24.84	+1.3	(1)
Steam railroad	25.49	+8.7	+19.2
Lumber and allied products:			
Furniture	16.08	+2.4	+9.4
Lumber:			
Millwork	15.01	+.2	+4.1
Sawmills	14.62	−1.3	+18.6
Turpentine and rosin	13.44	+4.8	+3.7
Stone, clay, and glass products:			
Brick, tile, and terra cotta	12.56	−1.1	+3.2
Cement	18.37	+10.7	+2.1
Glass	18.64	+.9	+6.7

[1] No change.

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN OCTOBER 1933 AND COMPARISON WITH SEPTEMBER 1933 AND OCTOBER 1932—Con.

Industry	Per capita weekly earnings in October 1933	Percent of change compared with—	
		September 1933	October 1932
Stone, clay, and glass products—Continued.			
Marble, granite, slate, and other products	$19.59	+2.4	−11.7
Pottery	18.01	+3.9	+7.9
Leather and its manufactures:			
Boots and shoes	16.61	−7.1	+8.0
Leather	19.86	+2.0	+3.5
Paper and printing:			
Boxes, paper	17.50	−2.2	−5.3
Paper and pulp	18.63	−1.1	+.9
Printing and publishing:			
Book and job	25.16	+.4	−4.0
Newspapers and periodicals	30.97	+.1	−7.1
Chemicals and allied products:			
Chemicals	23.89	+4.4	−1.0
Cottonseed oil, cake, and meal	10.70	+4.6	+15.7
Druggists' preparations	20.29	+1.4	+1.4
Explosives	21.44	+5.8	+8.0
Fertilizers	12.90	+2.1	+.4
Paints and varnishes	21.00	+3.1	−5.1
Petroleum refining	27.01	+.1	−2.3
Rayon and allied products	17.75	+2.1	+2.7
Soap	20.79	+.2	−9.2
Rubber products:			
Rubber boots and shoes	18.77	+2.0	+17.4
Rubber goods, other than boots, shoes, tires, and inner tubes	18.06	+5.5	−5.7
Rubber tires and inner tubes	21.24	+.7	+16.5
Tobacco manufactures:			
Chewing and smoking tobacco and snuff	13.79	−2.3	+2.8
Cigars and cigarettes	14.01	+2.0	+9.0
Total, 89 industries	18.81	[1] +.4	[1] +8.7

[1] Weighted.

General Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

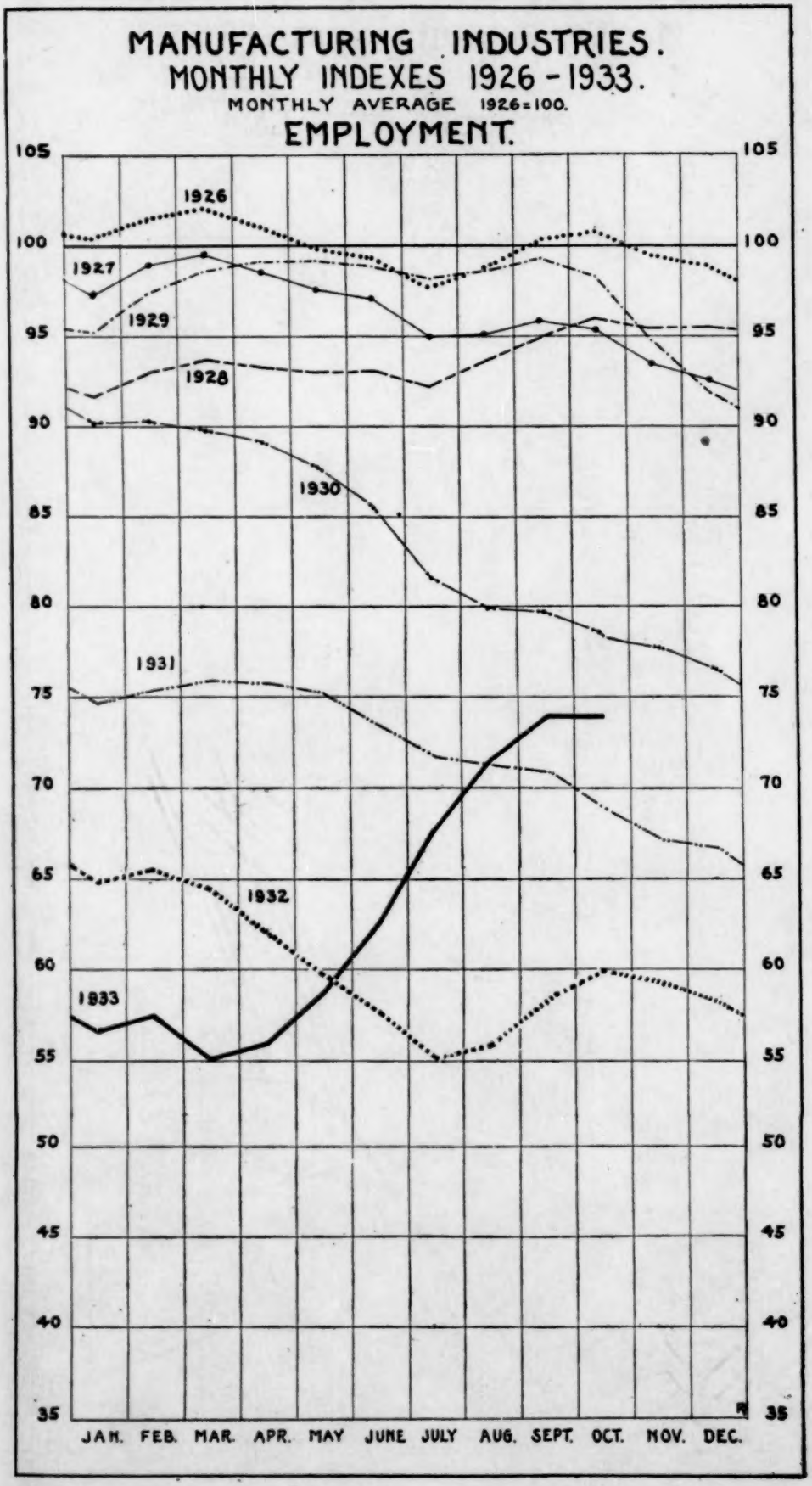
GENERAL index numbers of employment and pay-roll totals in manufacturing industries by months, from January 1926 to October 1933, together with average indexes for each of the years from 1926 to 1932 and for the 10-month period, January to October 1933, inclusive, are shown in the following table. In computing these general indexes the index numbers of each of the separate industries are weighted according to their relative importance in the total. Following this table are two charts prepared from these general indexes showing the course of employment and pay rolls from January 1926 to October 1933, inclusive.

TABLE 3.—GENERAL INDEXES OF EMPLOYMENT AND PAY ROLLS IN MANUFACTURING INDUSTRIES, JANUARY 1926 TO OCTOBER 1933

[12-month average, 1926=100]

Month	Employment								Pay rolls							
	1926	1927	1928	1929	1930	1931	1932	1933	1926	1927	1928	1929	1930	1931	1932	1933
January	100.4	97.3	91.6	95.2	90.7	74.6	64.8	56.6	98.0	94.9	89.6	94.5	88.1	63.7	48.6	35.8
February	101.5	99.0	93.0	97.4	90.9	75.3	65.6	57.5	102.2	100.6	93.9	101.8	91.3	68.1	49.6	36.4
March	102.0	99.5	93.7	98.6	90.5	75.9	64.5	55.1	103.4	102.0	95.2	103.9	91.6	69.6	48.2	33.4
April	101.0	98.6	93.3	99.1	89.9	75.7	62.2	56.0	101.5	100.8	93.8	104.6	90.7	68.5	44.7	34.9
May	99.8	97.6	93.0	99.2	88.6	75.2	59.7	58.7	99.8	99.8	94.1	104.8	88.6	67.7	42.5	38.9
June	99.3	97.0	93.1	98.8	86.5	73.4	57.5	62.8	99.7	97.4	94.2	102.8	85.2	63.8	39.3	43.1
July	97.7	95.0	92.2	98.2	82.7	71.7	55.2	67.3	95.2	93.0	91.2	98.2	77.0	60.3	36.2	46.5
August	98.7	95.1	93.6	98.6	81.0	71.2	56.0	71.6	98.7	95.0	94.2	102.1	75.0	59.7	36.3	51.9
September	100.3	95.8	95.0	99.3	80.9	70.9	58.5	73.9	99.3	94.1	95.4	102.6	75.4	56.7	38.1	53.3
October	100.7	95.3	95.9	98.4	79.9	68.9	59.9	74.0	102.9	95.2	99.0	102.4	74.0	55.3	39.9	53.6
November	99.5	93.5	95.4	95.0	77.9	67.1	59.4	-----	99.6	91.6	96.1	95.4	69.6	52.5	38.6	-----
December	98.9	92.6	95.5	92.3	76.6	66.7	58.3	-----	99.8	93.2	97.7	92.4	68.8	52.2	37.7	-----
Average	**100.0**	**96.4**	**93.8**	**97.5**	**84.7**	**72.2**	**60.1**	[1]63.4	**100.0**	**96.5**	**94.5**	**100.5**	**81.3**	**61.5**	**41.6**	[1]42.8

[1] Average for 10 months.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926 - 1933.
MONTHLY AVERAGE 1926=100.
EMPLOYMENT.
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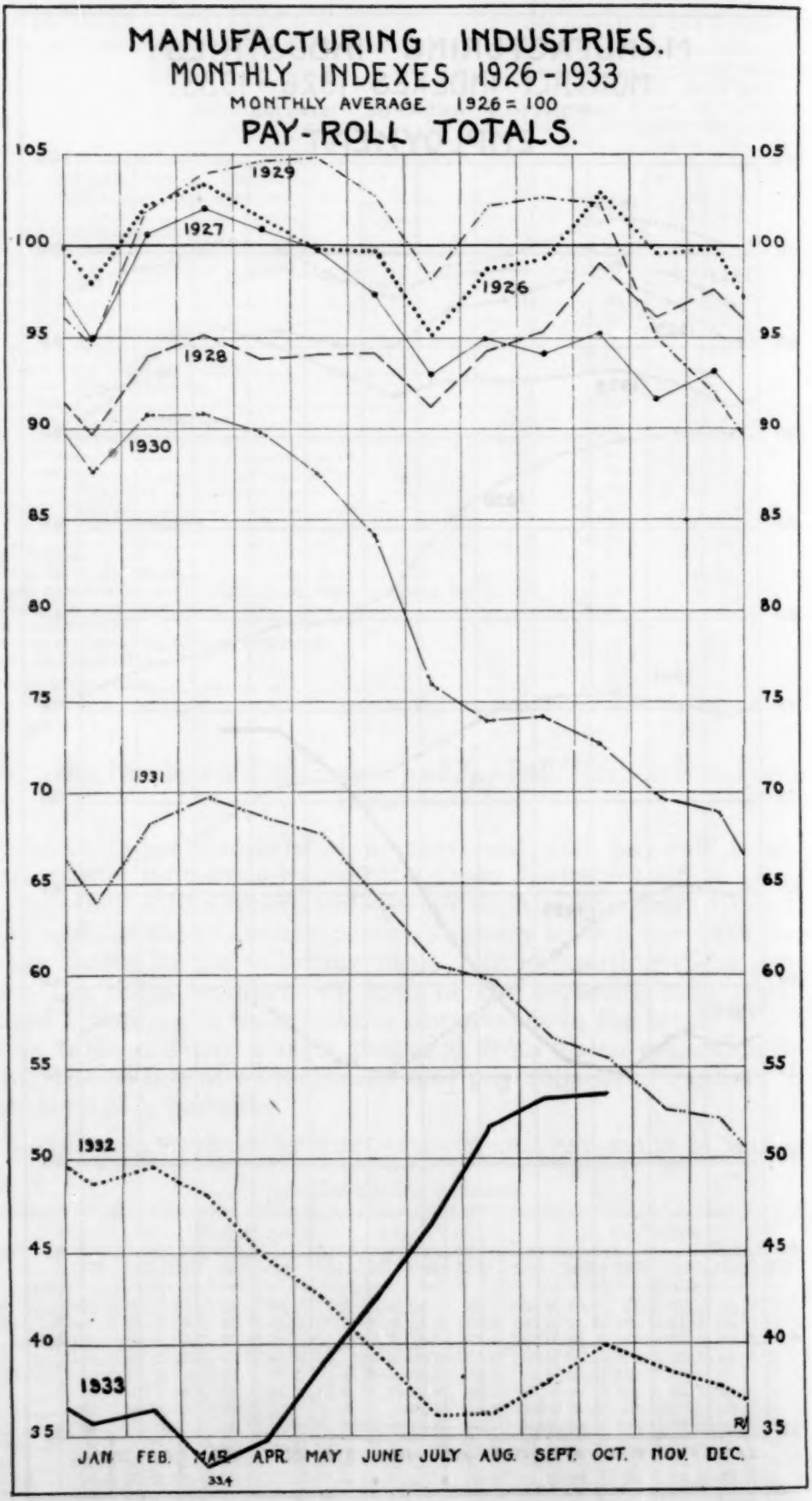
MANUFACTURING INDUSTRIES.
MONTHLY INDEXES 1926-1933
MONTHLY AVERAGE 1926 = 100
PAY-ROLL TOTALS.
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Time Worked in Manufacturing Industries in October 1933

REPORTS as to working time in October were received from 14,883 establishments in 89 manufacturing industries. Two percent of these establishments were idle, 70 percent operated on a full-time basis, and 28 percent worked on a part-time schedule.

An average of 93 percent of full-time operation in October was shown by reports received from all the operating establishments included in table 4. The establishments working part time in October averaged 76 percent of full-time operation.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN OCTOBER 1933

Industry	Establishments reporting—		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Food and kindred products	**2,665**	**1**	**77**	**22**	**96**	**70**
Baking	937	(1)	84	15	98	88
Beverages	301		59	41	91	78
Butter	250	2	65	33	93	78
Confectionery	263	2	70	27	94	77
Flour	381	(1)	87	13	96	70
Ice cream	264	2	72	27	95	81
Slaughtering and meat packing	198		77	23	96	84
Sugar, beet	60		98	2	100	80
Sugar refining, cane	11		64	36	90	73
Textiles and their products	**2,695**	**4**	**81**	**15**	**95**	**71**
Fabrics:						
Carpets and rugs	20	10	85	5	97	40
Cotton goods	644	1	83	16	95	70
Cotton small wares	99	2	70	28	92	74
Dyeing and finishing textiles	130	5	84	12	97	73
Hats, fur-felt	20		30	70	82	74
Knit goods	419	1	92	7	99	79
Silk and rayon goods	209	21	72	7	98	76
Woolen and worsted goods	230	3	83	14	96	69
Wearing apparel:						
Clothing, men's	286	3	81	15	96	71
Clothing, women's	374	6	76	18	93	65
Corsets and allied garments	24	4	46	50	91	82
Men's furnishings	55	4	58	38	92	80
Millinery	89		81	19	93	61
Shirts and collars	96	2	85	13	97	75
Iron and steel and their products, not including machinery	**1,130**	**2**	**50**	**48**	**87**	**74**
Bolts, nuts, washers, and rivets	68		43	57	84	71
Cast-iron pipe	41	20	17	63	67	59
Cutlery (not including silver and plated cutlery) and edge tools	113	1	36	63	84	76
Forgings, iron and steel	41		29	71	83	76
Hardware	77		61	39	90	74
Iron and steel	133	8	67	25	93	74
Plumbers' supplies	56		34	66	80	70
Steam and hot-water heating apparatus and steam fittings	87	5	41	54	81	67
Stoves	144		64	36	92	78
Structural and ornamental metal work	158	2	69	29	95	82
Tin cans and other tinware	55		51	49	89	78
Tools (not including edge tools, machine tools, files, and saws)	108	1	29	70	81	74
Wirework	49		41	59	86	76
Machinery, not including transportation equipment	**1,491**	**1**	**62**	**37**	**91**	**74**
Agricultural implements	46		80	20	97	83
Cash registers, adding machines, and calculating machines	25	4	44	52	89	78
Electrical machinery, apparatus, and supplies	242		69	31	95	84
Engines, turbines, tractors, and water wheels	71	1	34	65	80	70
Foundry and machine-shop products	901	1	62	37	90	72
Machine tools	124	1	58	41	88	71

[1] Less than one half of 1 percent.

TABLE 4.—PROPORTION OF FULL TIME WORKED IN **MANUFACTURING** INDUSTRIES BY ESTABLISHMENTS REPORTING IN OCTOBER 1933—Continued

Industry	Establishments reporting—		Percent of establishments operating—		Average percent of full time reported by—	
	Total number	Percent idle	Full time	Part time	All operating establishments	Establishments operating part time
Machinery—Continued.						
Radios and phonographs	38		87	13	98	82
Textile machinery and parts	37		54	46	91	81
Typewriters and supplies	7		71	29	97	91
Nonferrous metals and their products	**529**	**1**	**49**	**50**	**88**	**77**
Aluminum manufactures	22		36	64	85	77
Brass, bronze, and copper products	187	1	56	43	89	76
Clocks and watches and time-recording devices	20		15	85	81	78
Jewelry	110	3	30	67	87	81
Lighting equipment	43		30	70	82	74
Silverware and plated ware	48	2	42	56	84	71
Smelting and refining—copper, lead, and zinc	24	4	79	17	96	75
Stamped and enameled ware	75		80	20	95	77
Transportation equipment	**327**	**2**	**72**	**27**	**95**	**76**
Aircraft	25		72	28	95	82
Automobiles	163		83	17	98	72
Cars, electric and steam railroad	39	8	13	79	78	74
Locomotives	7		29	71	77	67
Shipbuilding	93	2	80	18	98	88
Railroad repair shops	**718**	(1)	**47**	**53**	**90**	**81**
Electric railroad	297		74	26	96	84
Steam railroad	421	(1)	28	72	86	81
Lumber and allied products	**1,271**	**1**	**73**	**25**	**94**	**76**
Furniture	393	1	85	13	97	76
Lumber:						
Millwork	375	2	67	31	93	79
Sawmills	483	1	71	29	92	74
Turpentine and rosin	20	10	20	70	84	80
Stone, clay, and glass products	**764**	**12**	**59**	**29**	**91**	**74**
Brick, tile, and terra cotta	230	21	60	19	92	67
Cement	88	19	63	18	90	58
Glass	151	3	82	15	97	83
Marble, granite, slate, and other products	193	9	26	64	84	77
Pottery	102	3	81	16	95	70
Leather and its manufactures	**413**	**2**	**84**	**14**	**96**	**71**
Boots and shoes	284	2	82	16	95	70
Leather	129	1	88	11	97	77
Paper and printing	**1,701**	(1)	**80**	**20**	**96**	**78**
Boxes, paper	272		78	22	95	78
Paper and pulp	334	1	67	32	92	76
Printing and publishing:						
Book and job	688	(1)	83	16	96	75
Newspapers and periodicals	407		86	14	98	88
Chemicals and allied products	**845**	**1**	**69**	**30**	**94**	**80**
Chemicals	69	1	90	9	99	86
Cottonseed oil, cake, and meal	66		80	20	93	65
Druggists' preparations	28		50	50	90	81
Explosives	14		29	71	86	81
Fertilizers	161	1	97	2	100	80
Paints and varnishes	308	1	49	50	90	81
Petroleum refining	98	2	90	8	99	91
Rayon and allied products	14		93	7	99	80
Soap	87		53	47	91	80
Rubber products	**125**		**44**	**56**	**87**	**76**
Rubber boots and shoes	9		89	11	99	90
Rubber goods, other than boots, shoes, tires, and inner tubes	85		31	69	84	77
Rubber tires and inner tubes	31		68	32	92	74
Tobacco manufactures	**209**	**6**	**54**	**40**	**89**	**75**
Chewing and smoking tobacco and snuff	28	4	50	46	89	76
Cigars and cigarettes	181	7	55	39	89	74
Total, 89 Industries	**14,883**	**2**	**70**	**28**	**93**	**76**

[1] Less than one half of 1 percent.

Employment in Nonmanufacturing Industries in October 1933

EMPLOYMENT increased in October as compared with September 1933 in 10 of the 15 nonmanufacturing industries appearing in the following table, and increased pay-roll totals were reported in 12 of these 15 industries. Data for the building-construction industry are not presented here but are shown in more detail under the section "Building construction."

The estimated gains in employment in 10 of these 15 nonmanufacturing industries more than offset the declines in the remaining 5 industries. Reports from retail-trade establishments indicate an estimated gain of approximately 117,000 workers in that industry between September and October.

The wholesale-trade industry showed an increase of approximately 13,000 workers and the crude-petroleum-producing industry reported an estimated expansion of approximately 7,000 workers over the month interval. Employment gains in the power and light group were estimated at 6,000. The number returned to employment in the telephone and telegraph, electric-railroad, anthracite-mining, metalliferous-mining, and quarrying and nonmetallic-mining industries was smaller.

The decrease of 28.1 percent in the canning and preserving industry represents an estimated drop of over 55,000 employees between September and October. This decrease, of course, is expected following the peak month of September. The bituminous-coal-mining industry, due largely to strikes in certain localities, also reported a sharp decline. The decreases in number of workers in the remaining three industries (hotels, laundries, and dyeing and cleaning) were much less pronounced.

The crude-petroleum-producing industry reported the largest percentage gains in both items, 6.7 percent in employment and 12.8 percent in pay rolls. The metalliferous-mining industry reported an increase of 4.6 percent in employment over the month interval, and retail-trade establishments showed a gain of 4.2 percent. The power and light industry reported an increase of 2.4 percent in number of workers between September and October, wholesale-trade establishments reported a gain of 1.7 percent, electric-railroad and motor-bus operation showed an increase of 1.4 percent, and the quarrying and nonmetallic-mining industry reported a gain of 1.1 percent. The increases in employment in the remaining four industries in which increased employment was reported were as follows: Telephone and telegraph, 0.5 percent; banks, brokerage, insurance, real estate, 0.4 percent; and anthracite mining, 0.2 percent.

In the five industries in which decreased employment was reported over the month interval, the most pronounced decline was a seasonal decrease of 28.1 percent in the canning and preserving industry, which reached its peak of employment in September and regularly shows a sharp decline in October. Employment in the bituminous-coal-mining industry was affected by strikes in various localities, the industry reporting a decline of 5.3 percent. Increased earnings, however, in a large number of mines not affected by the labor disturbances resulted in a net decline of only one tenth of 1 percent in weekly pay rolls over the month interval. The hotel industry reported a falling off of 2.1 percent in employment in October due entirely to the closing

of seasonal resort hotels, which were open during the first half of September and were closed in October. The laundry industry reported 1.6 percent fewer employees in October than in September, and the dyeing and cleaning industry reported a decrease of 0.3 percent.

With the exception of 3 industries (telephone and telegraph, electric-railroad and motor-bus operation, and anthracite mining), each of these 15 nonmanufacturing industries reported more employees on their pay rolls in October 1933 than in October 1932.

In the following table are presented employment and pay-roll data for the nonmanufacturing industries surveyed, exclusive of building construction:

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY ROLLS IN NONMANUFACTURING ESTABLISHMENTS IN OCTOBER 1933 WITH SEPTEMBER 1933 AND OCTOBER 1932

Industrial group	Establishments reporting in both September and October 1933	Employment			Pay-roll totals			Index numbers, October 1933 (average 1929=100)	
		Number on pay roll October 1933	Percent of change		Amount of pay roll (1 week) October 1933	Percent of change			
			September to October 1933	October 1932 to October 1933		September to October 1933	October 1932 to October 1933	Employment	Pay-roll totals
Coal mining:									
Anthracite	159	77,833	+0.2	−11.0	$2,450,825	+1.5	−7.6	56.9	61.6
Bituminous	1,514	210,835	−5.3	+1.5	3,514,092	−.1	+16.7	68.0	44.1
Metalliferous mining	297	27,974	+4.6	+33.4	573,642	+8.5	+43.9	40.7	25.9
Quarrying and nonmetallic mining	1,202	36,894	+1.1	+1.5	566,803	+6.4	+3.7	53.2	31.2
rude petroleum producing	260	29,053	+6.7	+24.3	804,187	+12.8	+17.9	70.6	50.1
Public utilities:									
Telephone and telegraph	8,294	246,416	+.5	−9.8	6,504,292	+3.8	−11.5	68.7	67.0
Power and light	3,132	204,268	+2.4	+2.9	5,978,638	+6.1	+2.4	82.2	76.2
Electric-railroad and motor-bus operation and maintenance	557	133,244	+1.4	−2.4	3,601,938	+3.6	−2.8	70.6	59.8
Trade:									
Wholesale	3,039	91,276	+1.7	+7.3	2,447,059	+6.0	+3.3	83.5	66.0
Retail	18,588	437,841	+4.2	+10.2	8,597,146	+4.4	+7.7	89.6	72.3
Hotels (cash payments only)[1]	2,706	140,128	−2.1	+2.1	1,790,048	+1.0	−4.1	77.0	56.2
Canning and preserving	888	96,778	−28.1	+55.7	1,044,743	−31.4	+68.1	126.3	87.1
Laundries	965	57,152	−1.6	+.6	863,414	−1.5	−2.5	78.0	59.7
Dyeing and cleaning	377	11,863	−.3	+7.4	208,481	+.5	+3.1	88.4	60.6
Banks, brokerage, insurance, and real estate	4,569	178,777	[2] +.4	[2] +.8	5,790,015	[2] +.2	[2] −1.9	[2] 99.4	[2] 84.7

[1] The additional value of board, room, and tips cannot be computed.
[2] Weighted.

Per capita weekly earnings in October 1933 for 15 nonmanufacturing industries included in the Bureau's monthly trend-of-employment survey, together with the percents of change in October 1933 as compared with September 1933 and October 1932, are given in the table following. These per capita weekly earnings must not be confused with full-time weekly rates of wages; they are per capita weekly earnings computed by dividing the total amount of pay roll for the week by the total number of employees (part-time as well as full-time workers).

TABLE 2.—PER CAPITA WEEKLY EARNINGS IN 15 NONMANUFACTURING INDUSTRIES IN OCTOBER 1933 AND COMPARISON WITH SEPTEMBER 1933 AND OCTOBER 1932

Industrial group	Per capita weekly earnings in October 1933	Percent of change October 1933 compared with—	
		September 1933	October 1932
Coal mining:			
Anthracite	$31.49	+1.3	+3.7
Bituminous	16.67	+5.5	+15.1
Metalliferous mining	20.51	+3.8	+7.8
Quarrying and nonmetallic mining	15.36	+5.2	+2.1
Crude-petroleum producing	27.68	+5.8	−5.1
Public utilities:			
Telephone and telegraph	26.40	+3.3	−1.8
Power and light	29.27	+3.6	−.4
Electric-railroad and motor-bus operation and maintenance	27.03	+2.2	−.5
Trade:			
Wholesale	26.81	+4.3	−3.8
Retail	19.64	+.3	−2.2
Hotels (cash payments only)[1]	12.77	+3.2	−6.0
Canning and preserving	10.80	−4.4	+8.0
Laundries	15.11	+.1	−3.2
Dyeing and cleaning	17.57	+.8	−3.9
Banks, brokerage, insurance, and real estate	32.39	[2] −.2	[2] −2.6

[1] The additional value of board, room, and tips cannot be computed.
[2] Weighted.

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

INDEX numbers of employment and pay-roll totals for 15 nonmanufacturing industries are presented in the following table. These index numbers show the variation in employment and pay rolls by months, from January 1930 to October 1933, in all nonmanufacturing industries with the exception of the laundry, dyeing and cleaning, and the banks, brokerage, insurance, and real-estate industries for which information over the entire period is not available. The Bureau has secured data concerning employment and pay rolls for the index base year 1929 from establishments in these industries and has computed index numbers for those months for which data are available from the Bureau's files. These indexes are shown in this tabulation.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTURING INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO OCTOBER 1933

[12-month average, 1929=100]

Month	Anthracite mining								Bituminous-coal mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	102.1	90.6	76.2	52.5	105.8	89.3	61.5	43.2	102.5	93.9	80.8	69.8	101.4	73.3	47.0	36.1
February	106.9	89.5	71.2	58.7	121.5	101.9	57.3	56.8	102.4	91.5	77.4	69.3	102.1	68.3	47.0	37.2
March	82.6	82.0	73.7	54.6	78.5	71.3	61.2	48.8	98.6	88.8	75.2	67.6	86.4	65.2	46.8	30.7
April	84.1	85.2	70.1	51.6	75.0	75.2	72.0	37.4	94.4	85.9	65.5	63.7	81.7	58.6	33.9	26.6
May	93.8	80.3	66.9	43.2	98.8	76.1	58.0	30.0	90.4	82.4	62.6	61.2	77.5	54.4	30.7	26.9
June	90.8	76.1	53.0	39.5	94.3	66.7	37.4	34.3	88.4	78.4	60.5	61.3	75.6	52.4	27.3	29.2
July	91.6	65.1	44.5	43.8	84.0	53.7	34.5	38.2	88.0	76.4	58.6	63.2	68.9	50.4	24.4	33.6
August	80.2	67.3	49.2	47.7	78.8	56.4	41.4	46.6	89.2	77.0	59.4	68.6	71.1	50.6	26.4	43.3
September	93.8	80.0	55.8	56.8	91.6	64.9	47.0	60.7	90.5	80.4	62.4	71.8	74.9	53.6	30.2	44.1
October	99.0	86.8	63.9	56.9	117.2	91.1	66.7	61.6	91.8	81.3	67.0	68.0	79.4	56.2	37.8	44.1
November	97.2	83.5	62.7	-----	98.0	79.5	51.0	-----	92.5	81.1	69.4	-----	79.1	54.6	38.0	-----
December	99.1	79.8	62.3	-----	100.0	78.4	56.2	-----	92.5	81.2	70.0	-----	77.7	52.3	37.7	-----
Average	93.4	80.5	62.5	[1] 50.5	95.3	75.4	53.7	[1] 45.8	93.4	83.2	67.4	[1] 66.5	81.3	57.5	35.6	[1] 35.2

Month	Metalliferous mining								Quarrying and nonmetallic mining							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	95.7	68.3	49.3	32.4	92.7	55.0	29.7	18.1	79.6	64.4	48.9	35.1	71.9	50.4	30.2	18.1
February	92.3	65.3	46.9	31.5	92.5	54.6	27.8	17.8	79.8	66.6	47.4	34.8	72.5	54.4	29.6	17.4
March	90.9	63.5	45.0	30.0	90.8	52.8	26.5	17.4	83.0	70.0	46.0	35.1	80.0	58.2	28.7	17.8
April	89.3	63.9	43.3	29.4	88.3	51.4	25.0	16.4	87.4	76.1	48.6	39.3	85.4	62.6	30.0	20.2
May	87.5	62.4	38.3	30.0	85.6	49.3	23.8	17.0	90.8	75.0	50.6	43.4	90.2	62.3	32.3	23.8
June	84.6	60.0	32.2	31.5	81.6	46.1	20.1	18.3	90.3	72.3	49.5	47.3	90.9	60.1	30.0	27.5
July	80.5	56.2	29.5	33.0	71.9	41.3	16.9	19.0	89.9	71.0	49.5	49.5	85.5	57.3	29.1	28.4
August	79.0	55.8	28.6	36.8	71.0	40.2	16.5	21.9	89.3	68.9	51.1	51.6	85.8	55.1	29.7	29.9
September	78.1	55.5	29.3	38.9	69.9	40.0	17.0	23.9	87.7	66.6	52.4	52.6	82.5	51.2	30.5	29.3
October	77.2	53.8	30.5	40.7	68.6	37.4	18.0	25.9	84.7	64.5	52.4	53.2	79.3	48.7	30.1	31.2
November	72.8	52.8	31.9	-----	63.4	35.1	18.7	-----	78.3	59.3	49.4	-----	66.8	43.3	27.1	-----
December	70.1	51.2	33.3	-----	59.9	34.3	18.7	-----	70.2	53.9	42.3	-----	59.9	36.9	22.1	-----
Average	83.2	59.1	36.5	[1] 33.4	78.0	44.8	21.6	[1] 19.6	84.3	67.4	49.0	[1] 44.2	79.3	53.4	29.1	[1] 24.4

Month	Crude-petroleum producing								Telephone and telegraph							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	92.7	74.8	54.9	57.2	94.0	71.5	46.5	39.9	101.6	90.5	83.0	74.6	105.1	96.3	89.1	71.7
February	90.8	73.2	54.4	57.0	88.6	70.0	46.9	41.7	100.2	89.2	82.0	73.9	101.9	94.8	89.6	71.9
March	89.3	72.2	51.4	56.5	91.3	73.2	43.2	42.5	99.4	88.6	81.7	73.2	105.8	97.9	88.2	71.6
April	86.8	69.8	54.9	56.8	86.6	66.3	44.5	40.1	98.9	88.1	81.2	72.3	103.4	95.0	83.4	67.8
May	89.8	67.8	54.5	56.9	85.4	64.7	47.1	41.6	99.7	87.4	80.6	70.1	103.2	94.1	82.8	68.5
June	90.2	65.0	54.2	58.0	87.1	62.7	44.8	40.6	99.8	86.9	79.9	69.2	103.4	95.0	82.1	66.6
July	89.9	65.3	55.4	59.5	88.5	59.2	44.6	42.2	100.0	86.6	79.1	68.5	106.6	93.3	79.6	66.7
August	87.7	62.4	57.4	60.8	86.0	56.3	42.9	42.5	98.8	85.9	78.1	68.1	102.5	92.3	79.1	66.1
September	85.0	61.2	56.2	66.2	84.0	55.2	41.9	44.4	96.8	85.0	77.4	68.3	102.2	92.1	75.9	64.6
October	85.2	60.4	56.8	70.6	82.6	54.4	42.5	50.1	94.5	84.1	76.2	68.7	100.9	91.6	75.7	67.0
November	83.6	57.6	56.5	-----	80.0	52.0	42.4	-----	93.0	83.5	75.5	-----	97.9	89.7	74.3	-----
December	77.4	58.2	57.2	-----	77.2	54.9	41.7	-----	91.6	83.1	74.8	-----	101.3	92.7	73.5	-----
Average	87.4	65.7	55.3	[1] 60.0	85.9	61.7	44.1	[1] 42.6	97.9	86.6	79.1	[1] 70.7	102.9	93.7	81.1	[1] 68.3

Month	Power and light								Electric-railroad and motor-bus operation and maintenance [2]							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	99.6	99.2	89.3	77.7	99.7	98.6	88.4	73.0	97.1	86.9	79.5	70.6	97.8	85.6	75.4	60.9
February	98.8	97.8	87.2	77.4	100.4	99.7	86.0	71.6	95.1	86.6	78.9	70.4	95.7	87.1	74.8	60.6
March	99.7	96.7	85.5	76.9	102.1	102.4	85.4	71.9	94.4	86.4	77.6	69.8	95.4	88.1	73.6	59.4
April	100.7	97.1	84.8	76.9	102.6	97.6	82.4	69.4	95.2	86.8	78.0	69.5	97.1	86.6	71.8	58.1
May	103.4	97.6	84.0	76.9	104.5	98.7	84.2	69.9	95.2	85.9	76.9	69.1	96.0	85.1	72.2	58.2
June	104.6	97.2	83.2	77.3	107.8	98.3	80.5	69.9	94.8	85.3	76.5	69.3	97.0	84.8	70.2	58.0
July	105.9	96.7	82.3	77.5	106.7	97.4	78.7	70.0	95.3	85.6	75.6	69.4	95.6	83.3	66.4	57.4
August	106.4	95.9	81.5	78.1	106.6	96.2	76.7	70.9	92.9	84.8	74.1	69.5	92.1	81.9	63.8	58.2
September	105.2	94.7	81.0	80.3	106.1	94.3	74.7	71.8	91.8	84.0	73.5	69.7	90.5	81.2	62.5	57.8
October	104.8	92.7	79.9	82.2	105.6	93.2	74.4	76.2	91.0	82.7	72.3	70.6	88.9	79.0	61.5	59.8
November	103.4	91.3	79.1	-----	103.7	93.3	73.2	-----	89.3	81.5	71.8	-----	87.7	79.7	61.7	-----
December	103.2	90.3	78.4	-----	106.3	91.2	73.2	-----	88.8	79.9	71.4	-----	88.6	77.8	61.9	-----
Average	103.0	95.6	83.0	[1] 78.1	104.3	96.7	79.8	[1] 71.5	93.4	84.7	75.5	[1] 69.8	93.5	83.4	68.0	[1] 58.8

[1] Average for 10 months.

[2] Not including electric-railroad-car building and repairing; see transportation equipment and railroad repair-shop groups, manufacturing industries, table 1.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY ROLLS FOR NONMANUFACTURING INDUSTRIES, JANUARY TO DECEMBER 1930, 1931, AND 1932, AND JANUARY TO OCTOBER 1933—Continued

[12-month average, 1929=100]

Month	Wholesale trade								Retail trade							
	Employment				Pay rolls				Employment				Pay rolls			
	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933	1930	1931	1932	1933
January	100.0	89.5	81.8	75.3	100.0	87.5	74.1	61.7	98.9	90.0	84.3	76.9	99.7	89.4	78.0	62.7
February	98.5	88.2	80.9	74.1	98.3	88.4	72.5	58.6	94.4	87.1	80.5	73.4	96.0	86.7	73.7	58.4
March	97.7	87.4	79.8	73.1	99.7	89.1	71.3	57.1	93.9	87.8	81.4	71.4	95.5	87.5	73.4	55.1
April	97.3	87.4	78.9	73.3	97.9	85.2	68.9	56.0	97.3	90.1	81.6	78.6	97.5	88.3	72.7	60.4
May	96.8	87.1	77.9	74.0	97.4	84.7	69.7	57.4	96.7	89.9	80.9	77.0	97.3	88.0	71.1	59.5
June	96.5	87.1	77.0	75.7	98.6	84.1	66.2	57.3	93.9	89.1	79.4	78.3	96.8	87.6	68.2	60.5
July	96.0	86.8	76.6	76.9	96.0	83.3	64.7	59.1	89.0	83.9	74.6	74.6	91.7	83.3	63.3	58.1
August	95.0	86.5	76.4	79.7	93.6	82.1	63.2	60.8	85.6	81.8	72.6	78.1	87.6	80.3	60.7	62.7
September	94.8	86.1	77.1	82.1	93.6	81.4	63.1	62.3	92.0	86.6	77.8	86.0	92.4	83.5	64.6	69.2
October	94.2	85.2	77.8	83.5	92.9	79.9	63.9	66.0	95.5	89.8	81.3	89.6	95.1	84.6	67.1	72.3
November	92.6	84.1	77.6	-----	91.0	79.7	63.3	-----	98.4	90.9	81.7	-----	96.8	85.4	66.9	-----
December	92.0	83.7	77.0	-----	91.3	77.8	62.6	-----	115.1	106.2	95.2	-----	107.7	94.1	73.6	-----
Average	96.0	86.6	78.2	[1] 76.8	95.9	83.6	67.0	[1] 59.6	95.9	89.4	80.9	[1] 78.4	96.2	86.6	69.4	[1] 61.9

Month	Hotels								Canning and preserving							
January	100.4	95.0	83.2	73.8	100.3	91.0	73.9	55.7	46.1	48.9	35.0	34.1	50.3	46.1	31.8	24.8
February	102.4	96.8	84.3	73.8	103.8	93.7	73.9	55.9	45.7	48.3	37.1	35.1	51.5	48.6	32.7	25.9
March	102.4	96.8	84.0	72.4	104.4	93.4	72.4	53.5	49.7	53.0	36.3	33.2	50.8	50.3	31.9	24.2
April	100.1	95.9	82.7	71.9	100.3	89.9	69.6	51.7	74.8	59.6	47.0	49.2	72.6	57.1	37.9	33.5
May	98.0	92.5	80.1	71.9	98.4	87.7	67.0	51.8	65.7	56.0	40.5	45.5	66.9	56.0	36.0	31.8
June	98.0	91.6	78.0	73.6	98.1	85.4	63.8	52.3	83.0	70.6	55.5	55.6	81.5	58.6	40.5	36.7
July	101.3	93.3	78.4	75.6	99.8	85.2	61.8	53.3	126.3	102.2	73.0	76.6	112.7	74.2	47.5	46.2
August	101.5	92.8	77.6	77.1	98.6	83.8	59.6	54.0	185.7	142.9	99.0	112.7	172.0	104.7	65.6	68.3
September	100.1	90.6	77.0	78.7	97.1	81.9	59.1	55.6	246.6	180.1	125.3	175.6	214.8	129.4	75.1	127.0
October	97.5	87.4	75.4	77.0	95.5	79.7	58.6	56.2	164.7	108.1	81.1	126.3	140.0	77.6	51.8	87.1
November	95.2	84.9	74.3	-----	93.6	77.1	57.5	-----	96.7	60.8	50.5	-----	82.9	48.1	34.4	-----
December	93.5	83.1	73.2	-----	91.5	75.4	56.6	-----	61.6	40.7	33.7	-----	57.4	36.9	25.6	-----
Average	99.2	91.7	79.0	[1] 74.6	98.5	85.4	64.5	[1] 54.0	103.9	80.9	59.5	[1] 74.4	96.1	65.6	42.6	[1] 50.6

Month	Laundries						Dyeing and cleaning						Banks, brokerage, insurance, and real estate			
	Employment			Pay rolls			Employment			Pay rolls			Employment		Pay rolls	
	1931	1932	1933	1931	1932	1933	1931	1932	1933	1931	1932	1933	1932	1933	1932	1933
January	90.5	84.7	75.4	86.6	76.4	57.9	88.9	82.1	73.0	77.7	65.8	46.6	98.3	97.5	93.5	85.2
February	90.0	82.9	74.4	85.6	73.3	55.5	87.4	80.5	70.9	75.1	62.2	42.4	98.3	96.8	93.0	84.3
March	89.5	82.0	73.0	85.6	71.6	52.9	88.0	80.6	71.2	75.6	61.7	41.0	98.9	96.5	92.9	83.7
April	90.5	82.0	73.4	86.8	71.4	54.0	95.7	83.3	81.1	86.3	65.9	54.6	98.6	96.2	92.1	82.9
May	90.3	81.4	73.5	86.5	70.6	54.5	96.7	84.5	82.0	86.6	67.3	53.9	98.0	96.2	92.7	83.2
June	91.0	81.0	76.0	87.1	68.6	56.7	99.0	85.1	85.6	89.1	65.8	56.7	97.9	97.3	90.0	84.4
July	91.8	80.3	76.3	87.4	66.3	56.1	98.6	82.4	82.9	86.2	60.0	52.8	98.4	97.7	89.8	84.8
August	90.2	78.9	77.9	84.6	63.9	57.6	93.5	79.5	83.1	80.0	56.3	52.8	98.5	98.3	88.2	84.4
September	89.3	78.6	79.3	84.1	62.9	60.6	95.3	83.3	88.6	82.6	61.0	60.3	98.4	99.0	87.1	84.5
October	88.1	77.5	78.0	81.8	61.2	59.7	94.2	82.3	88.4	81.4	58.8	60.6	98.6	99.4	86.3	84.7
November	86.2	76.2	-----	78.9	59.1	-----	90.1	78.0	-----	74.7	52.3	-----	98.0	-----	85.7	-----
December	85.3	75.9	-----	77.4	58.7	-----	84.9	75.2	-----	67.9	48.4	-----	98.0	-----	85.5	-----
Average	89.4	80.1	[1] 75.7	84.4	67.0	[1] 56.6	92.7	81.4	[1] 80.7	80.3	60.5	[1] 52.2	98.3	[1] 97.5	89.7	[1] 84.2

[1] Average for 10 months.

Average Man-Hours Worked and Average Hourly Earnings

IN THE following tables the Bureau presents a tabulation of man-hours worked per week and average hourly earnings based on reports supplied by identical establishments in September and October 1933 in 15 industrial groups and 78 separate manufacturing industries. Man-hour data for the building-construction group and for the insurance, real estate, banking, and brokerage group are not available, and data for several of the 89 manufacturing industries surveyed monthly are omitted from these tables due to lack of adequate information.

The total number of establishments supplying man-hour data in these 15 industrial groups represents approximately 50 percent of the establishments supplying monthly employment data.

The tabulations are based on reports supplying actual man-hours worked and do not include nominal man-hour totals, obtained by multiplying the total number of employees in the establishment by the plant operating time.

Table 1 shows the average hours worked per employee per week and average hourly earnings in 15 industrial groups and for all groups combined. The average hours per week and average hourly earnings for the combined total of the 15 industrial groups are weighted averages, wherein the average man-hours and average hourly earnings in each industrial group are multiplied by the total number of employees in the group in the current month and the sum of these products divided by the total number of employees in the combined 15 industrial groups. The average man-hours and hourly earnings for the combined 89 manufacturing industries have been weighted in the same manner as the averages for all industrial groups combined, table 1.

In presenting information for the separate manufacturing industries shown in table 2, data are published for only those industries in which the available man-hour information covers 20 percent or more of the total number of employees in the industry at the present time.

TABLE 1.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN 15 INDUSTRIAL GROUPS, SEPTEMBER AND OCTOBER 1933

Industrial group	Average hours per week		Average hourly earnings	
	September 1933	October 1933	September 1933	October 1933
	Hours	*Hours*	*Cents*	*Cents*
Manufacturing	36.1	35.8	51.6	52.5
Coal mining:				
Anthracite	38.0	38.7	82.2	81.3
Bituminous	31.8	29.9	50.2	56.5
Metalliferous mining	39.0	39.6	50.6	51.4
Quarrying and nonmetallic mining	34.4	34.9	42.8	44.3
Crude-petroleum producing	38.0	35.5	67.7	76.8
Public utilities:				
Telephone and telegraph	37.2	37.6	69.5	71.0
Power and light	42.8	43.1	66.0	67.6
Electric-railroad and motor-bus operation and maintenance	45.3	45.5	57.5	58.9
Trade:				
Wholesale	42.8	43.4	57.5	59.9
Retail	39.5	39.5	49.5	49.6
Hotels	50.2	50.2	23.7	24.2
Canning and preserving	37.0	34.8	34.1	33.8
Laundries	39.0	38.6	38.5	39.1
Dyeing and cleaning	41.5	41.3	42.5	43.3
Average	38.0	37.8	51.6	52.5

Per capita weekly earnings, computed by multiplying the average man-hours worked per week by the average hourly earnings shown in the following table, are not identical with the per capita weekly earnings appearing elsewhere in this trend-of-employment compilation, which are obtained by dividing the total weekly earnings in all establishments reporting by the total number of employees in those establishments. As already noted, the basic information upon which the average weekly man-hours and average hourly earnings are computed covers approximately 50 percent of the establishments reporting monthly employment data.

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED **MANUFACTURING** INDUSTRIES, SEPTEMBER AND OCTOBER 1933

Industry	Average hours per week		Average hourly earnings	
	September 1933	October 1933	September 1933	October 1933
	Hours	*Hours*	*Cents*	*Cents*
Food and kindred products:				
Baking	41.1	40.9	50.3	50.6
Beverages	41.0	38.6	67.6	69.1
Confectionery	37.6	36.0	38.8	39.8
Flour	38.3	39.1	52.1	51.7
Ice cream	45.7	43.5	54.0	57.6
Slaughtering and meat packing	40.0	39.7	49.9	49.9
Sugar, beet	48.0	51.6	43.9	38.1
Sugar refining, cane	38.5	35.0	51.4	56.2
Textiles and their products:				
Fabrics:				
Carpets and rugs	37.1	37.9	50.4	50.5
Cotton goods	36.0	35.4	36.5	36.9
Cotton small wares	37.0	36.5	42.7	43.8
Dyeing and finishing textiles	35.2	36.6	49.9	50.0
Knit goods	36.0	36.7	45.0	45.4
Silk and rayon goods	34.1	35.1	42.9	42.7
Woolen and worsted goods	37.3	34.9	48.0	49.5
Iron and steel and their products, not including machinery:				
Bolts, nuts, washers, and rivets	34.0	33.8	49.0	50.1
Cast-iron pipe	28.3	25.0	45.9	49.9
Cutlery (not including silver and plated cutlery) and edge tools	37.6	37.0	50.0	50.7
Forgings, iron and steel	32.6	34.6	56.8	58.1
Hardware	34.3	35.1	50.6	47.6
Iron and steel	33.8	33.4	57.0	59.4
Plumbers' supplies	34.6	31.8	49.2	51.1
Steam and hot-water heating apparatus and steam fittings	33.0	32.4	54.3	55.0
Stoves	35.9	37.7	50.7	51.7
Structural and ornamental metalwork	33.6	34.3	52.1	54.1
Tin cans and other tinware	40.4	36.7	46.4	49.8
Tools (not including edge tools, machine tools, files, and saws)	35.5	35.0	50.6	51.6
Wirework	36.7	34.9	52.0	55.4
Machinery, not including transportation equipment:				
Agricultural implements	34.2	35.1	50.0	51.3
Cash registers, adding machines, and calculating machines	38.7	37.8	66.9	69.8
Electrical machinery, apparatus, and supplies	33.4	33.7	58.8	59.4
Engines, turbines, tractors, and water wheels	34.5	34.8	58.6	59.6
Foundry and machine-shop products	33.8	34.1	54.7	55.8
Machine tools	35.0	36.0	59.0	58.2
Radios and phonographs	34.1	36.5	49.4	50.0
Textile machinery and parts	38.2	37.2	61.7	64.0
Typewriters and supplies	37.1	39.0	51.2	51.0
Nonferrous metals and their products:				
Aluminum manufactures	35.0	35.9	47.5	47.9
Brass, bronze, and copper products	36.7	35.6	52.1	52.4
Clocks and watches and time-recording devices	39.1	41.6	44.3	44.9
Jewelry	35.3	38.7	48.9	48.8
Lighting equipment	35.9	36.6	50.7	49.4
Silverware and plated ware	37.4	40.1	49.9	50.8
Smelting and refining—copper, lead, and zinc	37.3	36.3	49.4	51.1
Stamped and enameled ware	36.0	37.7	45.2	45.4

TABLE 2.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE AND AVERAGE HOURLY EARNINGS IN SELECTED **MANUFACTURING** INDUSTRIES, SEPTEMBER AND OCTOBER 1933—Continued

Industry	Average hours per week		Average hourly earnings	
	September 1933	October 1933	September 1933	October 1933
	Hours	*Hours*	*Cents*	*Cents*
Transportation equipment:				
Aircraft	39.1	37.6	68.9	70.3
Automobiles	33.6	32.5	64.6	65.0
Cars, electric and steam railroad	33.8	34.9	60.7	62.5
Locomotives	29.7	31.6	60.4	60.8
Shipbuilding	29.7	30.3	66.3	67.1
Railroad repair shops:				
Electric railroad	43.1	43.2	56.5	57.1
Steam railroad	37.7	40.5	62.8	63.0
Lumber and allied products:				
Furniture	37.6	38.0	41.9	42.1
Lumber:				
Millwork	35.0	34.2	43.0	44.0
Sawmills	37.5	34.7	41.4	43.5
Stone, clay, and glass products:				
Brick, tile, and terra cotta	32.3	31.1	40.8	40.9
Cement	31.8	33.2	52.2	53.8
Glass	33.8	33.9	53.6	52.9
Marble, granite, slate, and other products	33.5	34.5	58.8	60.1
Pottery	38.0	39.8	44.9	44.7
Leather and its manufactures: Leather	37.9	37.8	48.8	50.7
Paper and printing:				
Boxes, paper	37.6	36.8	46.6	46.7
Paper and pulp	40.0	38.7	47.0	48.3
Printing and publishing:				
Book and job	35.4	35.0	72.3	72.3
Newspapers and periodicals	38.1	38.2	80.1	80.7
Chemicals and allied products:				
Chemicals	38.5	39.3	59.3	60.7
Cottonseed oil, cake, and meal	41.6	42.7	25.8	26.5
Druggists' preparations	37.9	38.3	48.3	48.0
Explosives	35.6	35.4	59.7	60.1
Fertilizers	40.8	35.7	31.0	35.8
Paints and varnishes	37.7	38.2	54.1	54.4
Petroleum refining	35.5	35.7	70.1	71.6
Rayon and allied products	37.9	37.9	46.3	47.5
Soap	39.4	39.0	49.6	49.9
Rubber products:				
Rubber goods, other than boots, shoes, tires, and inner tubes	34.7	35.6	49.4	49.0
Rubber tires and inner tubes	29.9	30.6	68.1	68.8
Tobacco manufactures:				
Chewing and smoking tobacco and snuff	37.5	36.3	37.0	37.3
Cigars and cigarettes	38.4	38.0	35.4	36.6

Employment in Building Construction in October 1933

EMPLOYMENT in the building-construction industry increased 0.5 percent in October as compared with September and pay rolls increased 1.9 percent over the month interval.

The percents of change of employment and pay-roll totals in October as compared with September are based on returns made by 11,172 firms engaged on public and private projects not aided by public-works funds. These firms employed in October 92,953 workers in the various trades in the building-construction industry whose combined weekly earnings during the pay period ending nearest October 15 were $2,022,884. These reports cover building operations in various localities in 34 States and the District of Columbia.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, SEPTEMBER AND OCTOBER 1933

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		Sept. 15	Oct. 15		Sept. 15	Oct. 15	
Alabama: Birmingham	75	430	383	−10.9	$6,283	$5,634	−10.3
California:							
Los Angeles [1]	21	1,055	1,140	+8.1	20,204	22,617	+11.9
San Francisco-Oakland [1]	36	1,298	953	−26.6	29,633	19,904	−32.8
Other reporting localities [1]	22	571	526	−7.9	11,794	10,577	−10.3
Colorado: Denver	205	612	711	+16.2	11,268	12,961	+15.0
Connecticut:							
Bridgeport	125	560	615	+9.8	11,391	12,370	+8.6
Hartford	251	1,313	1,320	+.5	26,702	28,516	+6.8
New Haven	181	1,128	1,118	−.9	26,811	25,477	−5.0
Delaware: Wilmington	120	984	943	−4.2	19,290	19,125	−.9
District of Columbia	520	8,594	7,752	−9.8	244,525	210,480	−13.9
Florida:							
Jacksonville	58	531	496	−6.6	9,028	6,875	−23.8
Miami	84	1,096	1,129	+3.0	17,301	19,023	+10.0
Georgia: Atlanta	153	1,172	1,144	−2.4	17,172	17,740	+3.3
Illinois:							
Chicago [1]	125	1,573	1,443	−8.3	48,531	39,139	−19.4
Other reporting localities [1]	77	1,249	1,476	+18.2	22,628	30,181	+33.4
Indiana:							
Evansville	55	320	347	+8.4	4,760	5,478	+15.1
Fort Wayne	87	348	372	+6.9	5,900	6,757	+14.5
Indianapolis	164	1,144	1,270	+11.0	22,321	26,097	+16.9
South Bend	39	206	255	+23.8	3,488	5,681	+62.9
Iowa: Des Moines	105	587	601	+2.4	10,125	10,542	+4.1
Kansas: Wichita	69	356	346	−2.8	6,205	5,954	−4.0
Kentucky: Louisville	155	1,385	1,317	−4.9	25,831	23,622	−8.6
Louisiana: New Orleans	122	1,272	1,016	−20.1	19,807	17,269	−12.8
Maine: Portland	101	384	430	+12.0	8,517	9,693	+13.8
Maryland: Baltimore [1]	105	1,310	1,291	−1.5	22,935	21,815	−4.9
Massachusetts: All reporting localities [1]	716	4,643	4,896	+5.4	116,335	114,694	−1.4
Michigan:							
Detroit	503	4,699	4,744	+1.0	93,061	98,270	+5.6
Flint	60	247	257	+4.0	4,661	4,302	−7.7
Grand Rapids	110	433	506	+16.9	6,975	7,822	+12.1
Minnesota:							
Duluth	55	278	256	−7.9	5,061	4,556	−10.0
Minneapolis	223	1,615	1,672	+3.5	33,489	35,404	+5.7
St. Paul	178	1,269	1,414	+11.4	29,142	30,502	+4.7
Missouri:							
Kansas City [2]	298	1,730	1,750	+1.2	36,105	38,506	+6.7
St. Louis	584	3,183	3,464	+8.8	79,739	91,300	+14.5
Nebraska: Omaha	153	823	844	+2.6	15,791	17,617	+11.6
New York:							
New York City [1]	317	5,340	5,799	+8.6	154,332	176,668	+14.5
Other reporting localities [1]	234	6,107	5,668	−7.2	141,249	132,610	−6.1
North Carolina: Charlotte	53	349	340	−2.6	5,073	5,566	+9.7
Ohio:							
Akron	85	357	396	+10.9	5,915	7,736	+30.8
Cincinnati [3]	478	2,401	2,385	−.7	54,619	55,144	+1.0
Cleveland	621	2,738	2,956	+8.0	68,486	80,803	+18.0
Dayton	119	598	488	−18.4	10,717	9,703	−9.5
Youngstown	75	296	333	+12.5	4,862	5,608	+15.3
Oklahoma:							
Oklahoma City	98	533	657	+23.3	7,922	10,455	+32.0
Tulsa	56	192	240	+25.0	2,823	3,502	+24.1
Oregon: Portland	193	1,091	1,103	+1.1	22,040	23,514	+6.7
Pennsylvania: [4]							
Erie area [1]	28	350	259	−26.0	4,296	3,006	−30.0
Philadelphia area [1]	478	6,249	6,318	+1.1	115,716	121,398	+4.9
Pittsburgh area [1]	252	1,965	2,168	+10.3	47,507	46,659	−1.8
Reading-Lebanon area [1]	45	253	304	+20.2	4,236	5,307	+25.3
Scranton area [1]	38	261	269	+3.1	5,909	6,015	+1.8
Other reporting areas [1]	314	2,781	2,777	−.1	45,878	53,638	+16.9
Rhode Island: Providence	263	1,704	1,972	+15.7	35,813	44,790	+25.1
Tennessee:							
Chattanooga	38	336	211	−37.2	5,486	3,462	−36.9
Knoxville	49	437	471	+7.8	6,389	7,051	+10.4
Memphis	78	552	488	−11.6	9,331	8,399	−10.0
Nashville	90	1,196	1,026	−14.2	16,515	14,969	−9.4
Texas:							
Dallas	184	932	792	−15.0	14,680	12,583	−14.3
El Paso	32	187	137	−26.7	2,131	1,511	−29.1
Houston	175	1,215	1,153	−5.1	18,824	17,934	−4.7
San Antonio	119	705	560	−20.6	9,413	7,430	−21.1

[1] Data supplied by cooperating State bureaus.
[2] Includes both Kansas City, Mo. and Kansas City, Kans.
[3] Includes Covington and Newport, Ky.
[4] Each separate area includes from 2 to 8 counties.

COMPARISON OF EMPLOYMENT AND TOTAL PAY ROLL IN THE **BUILDING CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, SEPTEMBER AND OCTOBER 1933—Continued

Locality	Number of firms reporting	Number on pay roll		Percent of change	Amount of pay roll		Percent of change
		Sept. 15	Oct. 15		Sept. 15	Oct. 15	
Utah: Salt Lake City	91	448	620	+38.4	$8,903	$8,434	−5.3
Virginia:							
Norfolk-Portsmouth	94	1,092	968	−11.4	19,145	18,410	−3.8
Richmond	146	1,125	1,099	−2.3	22,208	22,233	+.1
Washington:							
Seattle	157	788	789	+.1	15,399	14,936	−3.0
Spokane	50	180	192	+6.7	3,717	3,592	−3.4
Tacoma	84	209	158	−24.4	3,601	2,751	−23.6
West Virginia: Wheeling	45	255	264	+3.5	4,690	5,591	+19.2
Wisconsin: All reporting localities [1]	58	858	1,396	+62.7	14,888	24,976	+67.8
Total, all localities	11,172	92,478	92,953	+.5	1,985,522	2,022,884	+1.9

[1] Data supplied by cooperating State bureaus.

Trend of Employment in October 1933, by States

IN THE following table are shown the fluctuations in employment and pay-roll totals in October 1933 as compared with September 1933, in certain industrial groups by States. These tabulations have been prepared from data secured directly from reporting establishments and from information supplied by cooperating State agencies. The combined total of all groups does not include building-construction data, information concerning which is published elsewhere in a separate tabulation by city and State totals. In addition to the combined total of all groups, the trend of employment and pay rolls in the manufacturing, public utility, hotel, wholesale trade, retail trade, bituminous-coal mining, crude-petroleum producing, quarrying and nonmetallic mining, metalliferous mining, laundry, and dyeing and cleaning groups is presented. In this State compilation, the totals of the telephone and telegraph, power and light, and electric-railroad operation groups have been combined and are presented as one group—public utilities. Due to the extreme seasonal fluctuations in the canning and preserving industry, and the fact that during certain months the activity in this industry in a number of States is negligible, data for this industry are not presented separately. The number of employees and the amount of weekly pay roll in September and October 1933 as reported by identical establishments in this industry are included, however, in the combined total of "all groups."

The percents of change shown in the accompanying table, unless otherwise noted, are unweighted percents of change; that is, the industries included in the groups, and the groups comprising the total of all groups, have not been weighted according to their relative importance in the combined totals.

The State totals for the anthracite-mining industry, which is confined entirely to the State of Pennsylvania, will be found in table 1, nonmanufacturing industries.

When the identity of any reporting company would be disclosed by the publication of a State total for any industrial group, figures for the group do not appear in the separate industrial-group tabulation, but are included in the State totals for "all groups." Data are not presented for any industrial group when the representation in the State covers less than three establishments.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Total all groups					Manufacturing				
	Number of establishments	Number on pay roll, October 1933	Per cent of change	Amount of pay roll (1 week) October 1933	Per cent of change	Number of establishments	Number on pay roll, October 1933	Per cent of change	Amount of pay roll (1 week) October 1933	Per cent of change
Alabama	521	66,320	+1.0	$887,770	+3.2	213	46,993	+1.0	$614,311	+4.0
Arizona	413	9,199	+5.3	191,978	+11.2	53	2,353	+1.6	49,405	+11.6
Arkansas	[1] *434*	*19,029*	*+2.6*	*273,376*	*+.2*	*178*	*15,677*	*+2.9*	*178,428*	*+.4*
California	[2] *1,947*	*278,909*	*−8.8*	*6,376,951*	*−7.3*	*1,129*	*164,680*	*−14.0*	*3,444,299*	*−13.9*
Colorado	815	38,646	+15.0	774,985	+15.0	118	16,526	+37.3	315,795	+29.4
Connecticut	1,119	171,944	+.9	3,357,053	+1.1	658	151,237	+.9	2,824,387	+1.1
Delaware	152	12,242	−5.4	243,569	+3.1	48	7,865	+([3])	157,822	+3.7
Dist. of Columbia	631	33,264	+3.3	764,824	+5.1	57	3,692	+7.5	118,635	+4.2
Florida	639	26,961	+5.6	465,843	+8.9	141	15,722	+8.4	233,419	+10.8
Georgia	684	95,024	−1.1	1,294,156	+1.2	318	79,786	−1.7	992,531	−.4
Odaho	225	9,927	+11.8	180,119	+6.0	41	5,312	+21.0	92,427	+10.8
Illinois	[4] *1,774*	*350,068*	*−.3*	*7,283,044*	*+1.9*	*1,120*	*223,093*	*−1.2*	*4,260,525*	*−.1*
Indiana	1,276	143,077	+2.5	2,752,522	+7.0	579	105,688	+3.5	2,090,843	+8.4
Iowa	1,201	48,544	−1.0	941,336	+4.6	435	27,284	+.1	519,345	+2.3
Kansas	[5] *1,357*	*68,896*	[6]*+1.6*	*1,485,013*	[6] *−.2*	*455*	*28,250*	*+.5*	*568,121*	*+.6*
Kentucky	854	75,357	+2.4	1,316,995	+7.1	205	28,138	−.6	514,879	+2.2
Louisiana	502	35,380	−1.0	584,764	+1.5	204	21,682	+([3])	318,905	−([3])
Maine	582	50,758	−6.3	861,826	−6.9	182	42,006	−3.9	712,783	−6.1
Maryland	*828*	*93,771*	*+2.2*	*1,847,958*	*−1.3*	*451*	*67,553*	[6]*+1.9*	*1,274,985*	[6] *−1.2*
Massachusetts	[5] *8,058*	*394,987*	*+1.9*	*8,112,533*	*+1.1*	*1,141*	*208,083*	*+1.9*	*3,870,229*	*−.1*
Michigan	1,613	290,927	−9.2	6,233,512	−9.6	*625*	*256,161*	*−7.4*	*5,285,411*	*−8.1*
Minnesota	1,101	74,239	+1.9	1,554,187	+7.6	301	36,869	+3.4	737,643	+8.7
Mississippi	372	10,890	+2.5	144,728	+4.0	72	7,351	+2.1	88,352	+1.3
Missouri	1,217	120,775	−([3])	2,448,889	+.8	530	69,240	−1.0	1,319,598	−2.0
Montana	357	11,808	+14.0	281,514	+13.8	52	4,128	+39.2	88,428	+39.2
Nebraska	727	26,692	+8.4	557,403	+12.5	125	14,596	+16.7	299,301	+19.0
Nevada	145	1,836	+7.6	45,227	+12.2	25	373	+.5	9,466	+2.7
New Hampshire	512	41,281	−5.0	660,771	−12.1	187	36,368	−4.2	554,659	−13.9
New Jersey	1,532	203,230	−1.4	4,509,079	+2.2	[7] *655*	*184,329*	*+1.3*	*3,861,332*	*+2.7*
New Mexico	194	4,508	([8])	85,932	+8.0	23	456	−6.9	8,038	−.6
New York	8,429	592,547	+.6	14,075,908	−([3])	[9] *1,801*	*365,914*	*+.1*	*8,237,920*	*−1.5*
North Carolina	916	134,142	+1.1	1,814,029	+3.1	556	128,630	+1.1	1,719,846	+3.1
North Dakota	342	4,558	+6.7	97,283	+10.4	59	1,150	−.1	26,169	+3.4
Ohio	5,067	455,618	+.5	9,236,944	+3.6	1,909	334,644	−.2	6,717,357	+2.6
Oklahoma	778	32,767	+4.3	652,069	+8.7	148	12,136	+4.7	230,869	+8.9
Oregon	699	40,301	−1.2	757,418	+1.2	155	19,737	−.8	373,865	+.8
Pennsylvania	5,091	674,399	−1.7	14,034,212	+1.1	*1,749*	*397,625*	*+.7*	*7,140,815*	*+3.1*
Rhode Island	918	68,544	+9.5	1,315,984	+9.9	265	56,252	+11.9	1,019,629	+12.7
South Carolina	320	59,689	+.4	773,808	+2.3	174	56,442	+1.0	718,941	+2.2
South Dakota	260	6,308	+3.3	144,742	+5.3	47	2,263	+7.2	40,804	+5.4
Tennessee	737	71,867	−.3	1,097,625	+.9	269	53,531	−1.3	789,323	−.1
Texas	*822*	*74,110*	*+5.4*	*1,622,405*	*+5.9*	*406*	*43,181*	*+7.1*	*882,300*	*+6.3*
Utah	345	16,737	+14.0	318,761	+15.6	85	6,364	+36.2	116,537	+26.7
Vermont	383	11,460	+2.2	215,445	+1.8	118	6,605	+4.7	123,647	+4.4
Virginia	1,323	95,018	+1.1	1,594,155	+2.3	411	67,196	−([3])	1,075,032	−.3
Washington	1,170	64,171	+1.6	1,278,740	+2.7	262	30,420	−.1	598,728	−1.2
West Virginia	875	112,132	−2.7	2,090,466	+.3	183	40,441	−11.2	726,234	−15.5
Wisconsin	[10] *1,050*	*155,431*	*+1.0*	*2,773,972*	*+3.4*	*777*	*123,970*	[6]*+1.8*	*2,139,912*	[6] *+4.5*
Wyoming	195	6,574	+12.7	173,474	+25.5	29	1,884	+40.0	47,140	+32.9

[1] Includes automobile dealers and garages, and sand, gravel, and building construction.
[2] Includes banks, insurance, and office employment.
[3] Less than one tenth of 1 percent.
[4] Includes building and contracting.
[5] Includes construction, municipal, agricultural, and office employment, amusement and recreation, professional, and transportation services.
[6] Weighted percent of change.
[7] Includes laundries.
[8] No change.
[9] Includes laundering and cleaning.
[10] Includes construction but does not include hotels and restaurants.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Wholesale trade					Retail trade				
	Number of establishments	Number on pay roll October, 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change
Alabama	14	514	+4.5	$15,108	+22.4	65	2,210	+8.3	$37,317	+7.2
Arizona	25	221	+.9	6,186	+9.9	181	1,717	+5.9	30,100	+8.1
Arkansas	*20*	*608*	*+5.5*	*16,107*	*+10.4*	*120*	*1,561*	*+5.0*	*22,991*	*−1.7*
California	*103*	*5,740*	*+1.8*	*157,005*	*+2.7*	*128*	*26,967*	*+.4*	*568,002*	*+.5*
Colorado	28	963	−.4	28,114	+6.7	280	4,781	+3.8	92,859	+5.7
Connecticut	54	984	(1)	29,448	+3.3	120	5,237	+4.6	103,808	+4.2
Delaware	7	93	+2.2	1,905	+4.6	22	454	+5.3	10,273	+4.7
Dist. of Columbia	26	376	+2.5	11,242	+5.0	412	12,641	+3.7	257,460	+6.9
Florida	72	1,146	−1.4	26,274	+4.5	106	1,953	+2.6	36,554	+7.5
Georgia	33	505	+2.4	14,747	+7.2	40	2,385	+1.8	41,312	+6.6
Idaho	8	123	+.8	3,446	+7.2	67	936	+6.4	14,998	+11.4
Illinois	*49*	*2,480*	*+1.3*	*60,281*	*+1.9*	*148*	*24,967*	*+2.9*	*491,621*	*+1.1*
Indiana	66	1,402	+1.6	34,816	+2.7	171	7,010	+2.1	124,122	+2.5
Iowa	36	1,170	−.3	29,738	+6.2	128	3,437	+2.4	60,325	+3.5
Kansas	*84*	*2,128*	*+4.7*	*49,116*	*−3.5*	*473*	*6,659*	*+1.6*	*120,459*	*+.7*
Kentucky	20	425	+.5	9,353	+4.0	44	3,176	+7.5	55,236	+8.1
Louisiana	29	754	+2.3	18,099	+9.6	48	3,255	−6.9	53,449	−1.7
Maine	18	468	(1)	10,868	−.3	67	969	+.1	17,551	+3.1
Maryland	*36*	*763*	*−.8*	*17,254*	*−1.6*	*59*	*7,144*	*+7.9*	*121,937*	*+2.8*
Massachusetts	*701*	*15,284*	*+1.0*	*391,191*	*+.7*	*4,184*	*66,783*	*+3.1*	*1,292,010*	*+1.7*
Michigan	62	1,651	+2.0	46,215	+6.4	166	11,452	−4.0	225,047	+2.8
Minnesota	68	4,949	+1.8	132,301	+6.9	263	8,272	+6.3	143,722	+2.6
Mississippi	4	112	+1.8	2,208	+5.6	52	484	+1.5	5,743	+8.9
Missouri	60	4,935	+.5	132,102	+7.6	109	9,602	−.6	188,548	+1.2
Montana	15	249	−3.1	7,619	+6.6	81	989	+4.1	19,446	+4.1
Nebraska	35	1,021	+2.6	27,624	+5.1	188	2,066	+8.7	37,920	+9.0
Nevada	8	112	(1)	3,373	+1.8	39	284	+8.0	6,171	+6.0
New Hampshire	16	175	−4.9	4,564	−2.7	73	999	+2.0	15,301	+2.9
New Jersey	25	674	+7.7	18,647	+5.6	414	8,803	+6.9	192,033	+6.8
New Mexico	6	87	+3.6	3,108	+4.4	51	271	+1.1	6,215	+1.1
New York	450	13,853	+1.0	423,425	+3.6	4,258	87,467	+5.0	1,847,147	+5.2
North Carolina	16	208	+4.5	5,353	+9.0	157	658	+7.2	14,120	+3.7
North Dakota	15	236	+.4	6,645	+5.2	11	299	+8.7	4,622	+8.2
Ohio	231	5,414	+.8	136,833	+4.3	1,593	38,084	+6.3	718,495	+4.6
Oklahoma	56	1,228	+1.1	29,403	+9.0	107	2,313	+4.4	42,009	+10.8
Oregon	54	1,432	+.6	38,588	+8.2	188	2,532	+3.5	51,634	+4.2
Pennsylvania	123	3,792	+2.1	103,115	+5.6	358	31,940	+10.2	614,843	+8.5
Rhode Island	44	1,213	+4.0	28,717	+3.6	491	5,028	+5.2	105,753	+3.4
South Carolina	14	217	+5.9	4,930	+9.4	20	537	(1)	5,869	+.7
South Dakota	10	130	−.8	3,429	+5.4	9	101	+11.0	1,714	+11.3
Tennessee	31	857	−6.3	18,149	−(1)	55	3,972	+9.8	61,053	+7.3
Texas	*131*	*3,306*	*+3.7*	*81,536*	*+4.7*	*79*	*8,142*	*+6.4*	*138,268*	*+6.5*
Utah	13	484	+.6	11,772	+3.6	78	591	+1.0	13,687	+3.9
Vermont	5	115	+6.5	2,726	+5.9	33	451	+1.1	6,970	+2.9
Virginia	46	1,327	+10.4	30,178	+12.3	502	5,511	+6.0	103,498	+5.0
Washington	91	2,288	−.1	62,431	+6.8	400	7,174	+2.6	133,395	+2.1
West Virginia	27	609	+.7	17,257	+10.1	48	902	+4.6	16,713	+11.1
Wisconsin	*46*	*888*	*−.6*	*29,111*	*+.3*	*50*	*11,087*	*+7.7*	*162,269*	*+8.5*
Wyoming	8	64	(1)	1,865	+5.8	41	248	+3.3	5,754	+6.2

[1] Less than one tenth of 1 percent.
[2] No change.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Quarrying and nonmetallic mining					Metalliferous mining				
	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change
Alabama	19	758	+27.2	$8,187	+47.6	9	1,660	+2.3	$23,858	−8.0
Arizona	3	41	−18.0	473	−17.0	20	2,362	+10.7	53,538	+18.0
Arkansas	10	324	−13.6	4,505	−6.0					
California	32	1,116	+1.8	22,403	+11.2	*33*	*2,817*	*+3.7*	*65,261*	*+3.5*
Colorado	4	44	+25.7	612	+4.6	16	1,086	+1.4	29,353	+17.7
Connecticut	26	353	−13.1	5,624	−8.9					
Delaware	3	59	−4.8	854	+3.3					
Dist. of Columbia										
Florida	18	835	−1.1	9,550	−1.6					
Georgia	27	1,489	+9.7	15,759	+18.9					
Idaho						11	2,147	+3.3	46,875	−3.2
Illinois	24	904	+.3	14,938	−4.3					
Indiana	71	1,795	+3.0	27,403	−1.5					
Iowa	32	589	−11.4	8,092	−6.9					
Kansas	*24*	*1,206*	*−12.2*	*22,255*	*−6.1*	*12*	*936*	*−5.6*	*17,220*	*−.9*
Kentucky	36	943	+12.4	9,630	+12.5					
Louisiana	13	646	−10.3	9,771	+2.5					
Maine	12	209	−16.1	3,860	−26.1					
Maryland	*14*	*517*	*+12.8*	*4,248*	*+16.5*					
Massachusetts	23	519	+3.2	11,219	+5.2					
Michigan	47	1,420	−10.1	27,191	+3.1	42	4,036	+8.1	59,359	+13.3
Minnesota	26	501	+30.5	8,726	+41.8	32	1,706	+10.9	35,601	+18.6
Mississippi	8	171	+12.5	2,181	+21.6					
Missouri	47	1,166	+9.3	17,545	+18.4	15	1,756	+1.3	22,777	+5.7
Montana	9	122	−16.4	1,388	−36.9	17	2,380	+5.9	67,248	+5.4
Nebraska	7	235	+8.3	3,231	+20.6					
Nevada						17	466	+34.7	11,634	+56.0
New Hampshire	11	258	+150.5	7,650	+255.3					
New Jersey	42	811	+12.0	13,146	+10.3	3	13	+44.4	262	+16.4
New Mexico						5	931	−1.1	19,482	+12.7
New York	76	2,176	−.6	39,123	+.1					
North Carolina	14	395	−5.5	4,980	+7.8					
North Dakota										
Ohio	136	3,873	+1.0	58,442	+4.3					
Oklahoma	15	252	+39.2	1,980	+28.5	32	1,686	−.1	25,621	+2.9
Oregon	5	62	+14.8	984	+25.7	6	60	+3.4	1,112	+10.6
Pennsylvania	164	5,797	−2.4	84,883	+6.4					
Rhode Island										
South Carolina	5	95	−20.8	917	−22.3					
South Dakota	8	62	−3.1	1,153	+31.6					
Tennessee	25	1,539	+8.2	19,744	+23.1	4	313	+4.3	6,302	+12.1
Texas	*21*	*407*	*−37.5*	*8,809*	*−26.2*					
Utah	6	148	+28.7	2,216	+5.9	12	2,107	+4.0	40,986	+10.4
Vermont	40	2,329	+2.4	42,764	−2.0					
Virginia	32	1,411	−5.8	13,396	−11.0					
Washington	18	212	+29.3	3,855	+51.9					
West Virginia	24	899	−1.4	13,166	+5.7					
Wisconsin	*14*	*167*	*−2.3*	*2,248*	*−7.0*	(11)	*576*	*+4.7*	*6,923*	*+1.5*
Wyoming										

[11] Not available.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Bituminous-coal mining					Crude-petroleum producing				
	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change
Alabama	57	10,047	−1.8	$122,594	−4.0					
Arizona										
Arkansas	*5*	*195*	*−20.5*	*2,752*	*−17.1*	9	485	+9.2	$11,821	+22.6
California						40	7,723	+2.4	235,022	+8.8
Colorado	54	5,254	+14.5	94,785	+22.1					
Connecticut										
Delaware										
Dist. of Columbia										
Florida										
Georgia										
Idaho										
Illinois	*53*	*7,754*	*−1.2*	*157,494*	*+20.9*	7	145	−7.6	2,897	−1.2
Indiana	53	5,793	−4.1	109,876	+1.3	4	33	+37.5	382	+36.9
Iowa	23	1,980	+48.5	41,035	+143.6					
Kansas	*26*	*1,336*	*+13.1*	*19,559*	*+15.2*	30	1,466	+20.0	31,161	+17.8
Kentucky	165	31,773	+5.5	513,863	+14.2	6	261	+6.5	3,595	+24.7
Louisiana						8	216	+13.7	5,116	+34.4
Maine										
Maryland	*16*	*1,451*	*+1.0*	*19,381*	*+4.8*					
Massachusetts										
Michigan										
Minnesota										
Mississippi										
Missouri	21	1,649	+.5	26,862	+22.4					
Montana	11	913	+5.1	23,713	+13.7	4	24	−17.2	564	−17.3
Nebraska										
Nevada										
New Hampshire										
New Jersey										
New Mexico	13	1,493	+11.6	26,228	+18.6	5	57	+7.5	1,562	+2.8
New York						6	303	+60.3	7,261	+84.9
North Carolina										
North Dakota	10	721	+51.5	15,108	+57.7					
Ohio	84	13,520	+3.3	247,271	+26.6	6	87	+17.6	1,309	+70.9
Oklahoma	18	779	+21.0	15,209	+31.4	*56*	*5,335*	+10.3	127,505	+12.8
Oregon										
Pennsylvania	449	47,987	−28.8	604,521	−40.2	21	892	+36.6	20,132	+50.5
Rhode Island										
South Carolina										
South Dakota										
Tennessee	22	2,978	+1.0	38,535	−2.6					
Texas	*5*	371	+6.6	6,815	−5.6	*3*	*8,445*	+.7	*285,131*	*+6.0*
Utah	16	2,043	+36.7	51,706	+38.1					
Vermont										
Virginia	34	8,346	+6.7	143,690	+18.5					
Washington	10	387	+9.0	10,791	+48.7					
West Virginia	353	59,974	+3.0	1,110,970	+12.5	8	376	+13.6	7,824	+9.1
Wisconsin										
Wyoming	30	3,338	+6.4	95,899	+31.0	7	191	+4.4	4,882	+3.7

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN IDENTICAL ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Public utilities					Hotels				
	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of pay roll (1 week) October 1933	Percent of change
Alabama	89	1,737	+2.3	$35,936	+8.6	26	1,161	+.6	$9,773	+4.9
Arizona	68	1,401	+5.9	33,964	+8.8	21	466	+6.6	6,529	+7.8
Arkansas	*62*	*1,710*	*+.2*	*39,205*	*−.4*	*16*	*570*	*+2.1*	*4,734*	*+5.5*
California	*44*	*42,039*	*−.1*	*1,172,929*	*+4.8*	*187*	*8,921*	*−2.5*	*134,561*	*−2.3*
Colorado	196	5,390	+2.6	137,222	+5.3	59	1,346	−7.6	17,752	−6.6
Connecticut	135	9,464	+1.3	285,346	+.3	32	1,188	+.8	14,718	+.4
Delaware	28	1,104	+4.3	31,238	+7.6	6	251	([8])	3,401	+3.6
Dist. of Columbia	22	8,404	+.8	231,275	+5.1	48	4,123	+7.0	57,434	+8.7
Florida	185	4,775	+1.5	123,279	+10.1	58	1,087	+5.5	10,395	+6.4
Georgia	186	6,504	+2.6	177,474	+7.6	29	1,306	−4.6	10,057	−1.4
Idaho	56	730	+6.0	14,222	+7.3	22	355	−.3	4,021	+5.7
Illinois	*80*	*70,426*	*+3.0*	*1,934,605*	*+5.5*	[12] *53*	*12,801*	*−1.2*	*207,735*	*+7.5*
Indiana	115	7,700	+1.2	196,552	+9.3	83	3,294	+5.4	32,691	+4.7
Iowa	430	9,256	−.1	212,998	+6.7	67	2,299	+5.5	21,312	+6.1
Kansas	*126*	*7,299*	*−.5*	*167,029*	([8])	*32*	*694*	*+1.2*	*7,463*	*+3.8*
Kentucky	293	6,300	+.4	145,707	+5.4	36	1,832	+2.9	18,459	+5.5
Louisiana	151	5,527	+1.5	140,207	+6.7	22	1,726	−4.7	17,929	−4.3
Maine	167	2,558	+2.1	68,833	+3.6	37	1,225	−30.0	13,976	−32.7
Maryland	*93*	*12,477*	*+.7*	*338,287*	*−2.1*	*23*	*1,125*	*−.1*	*13,753*	*+3.1*
Massachusetts	[13] *131*	*45,698*	*+.4*	*1,273,862*	*−.3*	*92*	*4,787*	*−6.8*	*64,711*	*−6.2*
Michigan	406	22,473	+1.2	655,434	+4.8	110	4,658	−4.8	51,286	−2.4
Minnesota	232	12,800	+2.1	331,135	+8.7	80	3,236	+1.8	37,740	+3.2
Mississippi	143	973	−.1	19,747	+7.3	17	440	−2.4	3,038	−5.2
Missouri	141	7,171	+.1	184,827	+3.3	90	4,601	+4.9	52,528	+5.3
Montana	101	1,966	+9.6	54,090	+5.6	28	410	−1.9	5,523	−1.3
Nebraska	299	5,599	−.3	142,043	+6.8	42	1,495	+1.2	15,229	+8.3
Nevada	38	354	−3.0	10,181	+2.5	12	167	−1.2	2,694	−4.8
New Hampshire	140	2,149	+3.3	57,429	+4.0	26	589	−58.0	6,935	−54.9
New Jersey	265	21,174	−.1	604,087	+2.2	85	4,440	−25.4	54,653	−18.3
New Mexico	54	601	−9.8	12,336	+2.2	15	320	−10.6	3,414	−6.5
New York	864	97,472	+1.4	2,966,657	+1.8	277	30,557	−.1	457,043	+3.3
North Carolina	96	1,792	+3.8	37,495	+6.1	36	1,103	−2.5	9,203	−2.1
North Dakota	171	1,235	+1.3	30,386	+7.2	24	404	+2.0	4,105	+3.3
Ohio	489	31,964	+2.1	847,841	+7.1	152	8,946	+.9	104,914	+2.5
Oklahoma	245	5,926	+.5	133,937	+6.3	63	1,604	+3.8	17,083	+4.0
Oregon	183	5,556	+.9	140,160	+4.1	60	1,261	+3.5	15,447	+5.2
Pennsylvania	*734*	*53,130*	*+.7*	*1,474,411*	*+5.8*	181	9,672	+2.5	116,784	+4.3
Rhode Island	42	3,263	+.2	93,781	+3.6	25	403	−40.8	4,857	−34.2
South Carolina	70	1,533	−7.1	33,694	+5.7	15	422	+3.7	3,128	+9.1
South Dakota	129	1,025	+3.5	25,138	+6.1	19	307	−1.6	3,720	+2.1
Tennessee	244	4,341	+2.1	98,564	+3.4	37	2,203	−.7	18,700	+1.3
Texas	*136*	*6,932*	*+5.5*	*180,767*	*+7.1*	*46*	*3,697*	*+3.2*	*45,594*	*+3.3*
Utah	66	1,712	−.9	33,955	+2.0	13	474	−2.3	5,813	−.5
Vermont	122	1,055	+.4	25,582	+1.6	26	582	−8.3	5,805	−6.0
Virginia	123	2,474	+.6	58,891	+6.3	35	1,906	+2.1	19,917	+2.2
Washington	199	9,599	+1.0	259,208	+5.4	84	2,510	−.6	28,445	+1.5
West Virginia	119	6,254	+2.9	157,210	+7.5	38	1,112	+1.1	11,733	+1.7
Wisconsin	[14] *41*	*10,808*	*+1.6*	*312,150*	*+8.1*	[13] *43*	*1,282*	*−4.3*	([11])	
Wyoming	48	449	([8])	10,456	+5.2	12	127	+2.4	1,664	+2.4

[8] No change.
[11] Not available.
[12] Includes restaurants.
[13] Includes steam railroads.
[14] Includes railways and express.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Laundries					Dyeing and cleaning				
	Number of establishments	Number on pay roll October 1933	Per cent of change	Amount of pay roll (1 week) October 1933	Per cent of change	Number of establishments	Number on pay roll October 1933	Per cent of change	Amount of pay roll (1 week) October 1933	Per cent of change
Alabama	5	455	−2.4	$4,179	−1.1	3	104	−21.8	$1,022	−21.6
Arizona	10	377	+1.3	5,191	+2.0					
Arkansas	*13*	*362*	*−4.7*	*3,343*	*−8.0*	3	45	(1)	615	+10.6
California	[15] *69*	*4,977*	*−1.0*	*88,701*	*+1.6*					
Colorado	9	586	−2.3	7,860	−5.5	9	149	−13.9	2,598	−12.8
Connecticut	25	1,184	+.2	19,234	−.3	12	270	+4.2	5,555	+4.1
Delaware	3	237	−.8	3,965	−2.2					
Dist. of Columbia	20	2,561	+.3	38,627	−.1	5	132	−2.2	2,302	−2.4
Florida	9	501	−2.3	4,944	−.2	13	119	+5.3	1,867	+3.6
Georgia	12	660	−1.9	5,982	−7.5	4	98	−1.0	1,125	−1.9
Idaho										
Illinois	[15] *26*	*1,620*	*−3.6*	*22,774*	*−3.3*					
Indiana	21	1,553	−3.0	20,827	−5.7	12	215	+1.4	3,616	+1.8
Iowa	5	223	−2.2	3,113	−4.4	6	261	−1.5	4,125	−4.5
Kansas	[15] *40*	*918*	*+1.2*	*11,188*	*−.2*					
Kentucky	16	794	−4.0	9,512	−10.2	5	251	+2.4	3,610	+4.0
Louisiana						5	86	+10.3	1,078	+17.9
Maine	19	417	−11.3	5,958	−14.8					
Maryland	*25*	*1,886*	*−1.3*	*28,478*	*−4.0*	*12*	*462*	*+.9*	*6,974*	*+9.3*
Massachusetts	*113*	*3,696*	*+.2*	*58,528*	*−1.4*	*78*	*1,872*	*−2.2*	*31,603*	*−9.0*
Michigan	22	1,445	−4.3	19,880	−3.4	16	609	−1.1	11,267	−.4
Minnesota	13	663	−3.1	10,581	−1.5	12	459	+.2	7,680	−3.1
Mississippi	6	311	−1.6	3,096	−2.6					
Missouri	30	2,244	−1.3	29,587	−3.2	13	489	+3.6	8,666	+3.8
Montana	14	327	−.6	5,600	+3.3					
Nebraska	7	571	−2.1	7,780	−6.6	3	104	(1)	1,885	+4.8
Nevada	4	51	−1.9	956	−4.1					
New Hampshire	18	332	−2.4	4,794	−6.3					
New Jersey	25	3,124	−2.6	61,401	−.7	6	207	+1.5	5,163	+.4
New Mexico	4	187	−10.5	2,795	−9.2					
New York	70	7,138	−1.6	121,578	−.7	17	570	+2.0	10,762	+2.6
North Carolina	12	735	−5.4	7,776	−6.6					
North Dakota	11	210	−.9	3,171	+2.0					
Ohio	79	4,086	−1.9	60,106	−2.4	42	1,646	+2.0	29,664	+5.5
Oklahoma	9	619	−6.6	7,921	−6.1	6	180	−12.6	2,429	−6.5
Oregon	4	311	−1.3	4,887	+.2	4	64	−4.5	1,204	−4.6
Pennsylvania	40	2,928	+.1	44,213	+1.0	18	1,036	+.2	19,599	+9.4
Rhode Island	17	1,100	−2.7	18,764	−2.8	4	330	−5.4	6,177	+1.8
South Carolina	8	296	−3.6	2,860	−6.7					
South Dakota	5	104	−1.9	1,310	−8.6					
Tennessee	12	888	(1)	7,687	−4.0	4	54	−3.6	753	+3.0
Texas	24	1,176	−3.4	12,767	−5.0	16	430	−1.4	7,221	+1.0
Utah	7	489	(1)	6,850	−.2	8	128	−10.5	2,294	−10.3
Vermont	4	59	−9.2	784	−4.7					
Virginia	10	841	+4.1	9,171	−5.9	22	282	−2.1	4,145	+1.9
Washington	12	558	−4.0	10,019	−5.5	14	197	−2.5	3,541	+1.3
West Virginia	20	694	−.6	8,646	−2.2	9	221	+.9	2,987	+2.1
Wisconsin	[15] *28*	*996*	*+.5*	*12,890*	*−2.5*					
Wyoming	6	95	−3.1	1,535	−4.4					

[1] No change.
[15] Includes dyeing and cleaning.

COMPARISON OF EMPLOYMENT AND PAY ROLLS IN **IDENTICAL** ESTABLISHMENTS IN SEPTEMBER AND OCTOBER 1933, BY STATES—Continued

[Figures in italics are not compiled by the Bureau of Labor Statistics, but are taken from reports issued by cooperating State organizations]

State	Banks, brokerage, insurance, and real estate				
	Number of establishments	Number on pay roll October 1933	Percent of change	Amount of payroll (1 week) October 1933	Percent of change
Alabama	18	470	−0.8	$13,305	−1.8
Arizona	29	206	−1.9	5,606	+.8
Arkansas	19	242	−.8	5,891	+.7
California	1,140	22,931	−.6	751,471	+.2
Colorado	27	1,068	−.7	37,046	+.3
Connecticut	56	1,979	+.2	68,316	+.6
Delaware	17	570	−.5	19,696	−.4
District of Columbia	41	1,335	(1)	47,849	−1.2
Florida	18	567	+.5	17,393	+.3
Georgia	25	1,023	+.4	29,715	+.9
Idaho	16	138	−1.4	3,422	+.5
Illinois	94	10,802	+.1	368,436	+1.9
Indiana	39	1,176	−1.2	38,174	−1.0
Iowa	17	979	+.1	31,357	−.3
Kansas	*51*	*738*	*−1.2*	*22,607*	*−.9*
Kentucky	21	842	−.5	29,543	−2.4
Louisiana	9	371	+.3	13,520	−.5
Maine	16	254	(2)	6,597	+.2
Maryland	24	856	(2)	31,660	+.1
Massachusetts	227	8,408	+1.6	26,545	+2.7
Michigan	92	3,987	+.4	124,308	+3.1
Minnesota	52	4,189	+25.8	101,857	+15.3
Mississippi	17	195	+.5	4,322	+.9
Missouri	86	4,747	+.2	139,340	−2.8
Montana	21	244	(2)	6,867	−.5
Nebraska	17	505	+.2	17,412	+.8
Nevada					
New Hampshire	39	381	(2)	9,011	+.2
New Jersey	109	12,478	+.3	351,086	−.5
New Mexico	16	87	+1.2	2,583	+1.5
New York	726	53,634	−.6	1,842,595	−1.3
North Carolina	26	556	+8.6	14,459	+8.1
North Dakota	38	274	−1.1	6,590	−2.3
Ohio	278	7,938	−1.0	258,356	−.2
Oklahoma	21	592	−3.3	17,737	−.9
Oregon	15	758	−.4	26,356	+.7
Pennsylvania	*798*	*23,119*	*−.3*	*714,474*	*−.6*
Rhode Island	28	926	+.1	37,801	−.8
South Carolina	11	110	(2)	3,301	+3.1
South Dakota	31	240	(2)	6,004	+1.0
Tennessee	31	1,129	+.4	38,701	+.9
Texas	23	1,311	+.7	37,673	+.6
Utah	14	457	−1.3	16,203	−1.1
Vermont	30	235	+.9	6,702	−.4
Virginia	32	1,337	−.2	43,326	+.7
Washington	32	1,324	+2.0	40,472	−.7
West Virginia	44	609	−1.1	17,471	−1.1
Wisconsin	17	919	−.2	31,105	−(1)
Wyoming	10	90	(2)	2,762	+1.5

[1] Less than one tenth of 1 percent.
[2] No change.

Employment and Pay Rolls in October 1933 in Cities of Over 500,000 Population

IN THE following table are presented the fluctuations in employment and pay-roll totals in October 1933 as compared with September 1933 in 13 cities of the United States having a population of 500,000 or over. These changes are computed from reports received from identical establishments in each of the months considered.

In addition to including reports received from establishments in the several industrial groups regularly covered in the Bureau's survey, excluding building construction, reports have also been secured from other establishments in these cities for inclusion in these totals. Information concerning employment in building construction is not available for all cities at this time and therefore has not been included.

FLUCTUATIONS IN EMPLOYMENT AND PAY ROLLS IN OCTOBER 1933 AS COMPARED WITH SEPTEMBER 1933

Cities	Number of establishments reporting in both months	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		September 1933	October 1933		September 1933	October 1933	
New York City	5,396	345,282	351,859	+1.9	9,148,308	9,164,592	+0.2
Chicago, Ill	1,837	233,432	236,754	+1.4	5,375,740	5,473,204	+1.8
Philadelphia, Pa	842	149,742	156,319	+4.4	3,308,407	3,516,788	+6.3
Detroit, Mich	526	197,275	174,915	−11.3	4,525,377	3,951,659	−12.7
Los Angeles, Calif	833	77,706	79,113	+1.8	1,852,043	1,899,375	+2.6
Cleveland, Ohio	1,125	99,868	99,598	−.3	2,074,980	2,094,822	+1.0
St. Louis, Mo	520	73,756	73,731	−(1)	1,577,171	1,565,620	−.7
Baltimore, Md	577	54,684	56,348	+3.0	1,100,126	1,127,176	+2.5
Boston, Mass	3,654	99,675	101,249	+1.6	2,411,050	2,461,717	+2.1
Pittsburgh, Pa	435	56,333	56,951	+1.1	1,191,277	1,242,723	+4.3
San Francisco, Calif	1,151	53,887	52,234	−3.1	1,257,694	1,257,408	−(1)
Buffalo, N.Y	437	44,494	43,116	−3.1	966,001	938,827	−2.8
Milwaukee, Wis	451	45,800	46,669	+1.9	895,797	934,557	+4.3

[1] Less than one tenth of 1 percent.

Employment in the Executive Civil Service of the United States, October 1933

ON OCTOBER 31, 1933, the United States Government had on its pay rolls 577,170 employees. This is an increase of 4,303 as compared with October 31, 1932. Comparing October 1933 with September 1933, there was an increase of 10,814 employees or 1.9 percent.

The data presented herein does not include the legislative, judicial, or Army and Navy services. The information shown in table 1 was compiled by the various departments and offices of the United States Government and sent to the United States Civil Service Commission where it was assembled. The figures were tabulated by the Bureau of Labor Statistics and are published in compliance with the direction of Congress.

Table 1 shows the number of Federal employees inside the District of Columbia, the number of employees outside of the District of Columbia, and the total number for the entire Federal service.

Approximately 12 percent of the total number of workers on the pay rolls of the United States Government are employed inside the District of Columbia.

TABLE 1.—EMPLOYEES IN THE EXECUTIVE CIVIL SERVICE OF THE UNITED STATES, OCTOBER 1932, SEPTEMBER AND OCTOBER 1933

Item	District of Columbia			Outside the District			Entire service		
	Permanent	Temporary[1]	Total	Permanent	Temporary[1]	Total	Permanent	Temporary[1]	Total
Number of employees:									
October 1932	64,484	2,490	66,974	470,043	35,850	505,893	534,527	38,340	572,867
September 1933	63,258	6,482	69,740	453,750	42,866	496,616	517,008	49,348	566,356
October 1933	64,668	6,386	71,054	454,056	52,060	506,116	518,724	58,446	577,170
Gain or loss:									
October 1932–October 1933	+184	+3,896	+4,080	−15,987	+16,210	+223	−15,803	+20,106	+4,303
September 1933–October 1933	+1,410	−96	+1,314	+306	+9,194	+9,500	+1,716	+9,098	+10,814
Percent of change:									
October 1932–October 1933	+.3	+156.5	+6.1	−3.4	+45.2	+(5)	−3.0	+52.4	+.8
September 1933–October 1933	+2.2	−1.5	+1.9	+.1	+21.4	+1.9	+.3	+18.4	+1.9
Labor turn-over October 1933:									
Additions	[2] 2,007	1,426	[2] 3,433	[3] 12,152	24,445	[3] 36,597	[4] 14,159	25,871	[4] 40,030
Separations	1,326	[2] 793	[2] 2,119	12,307	[3] 14,790	[3] 27,097	13,633	[4] 15,583	[4] 29,216
Turn-over rate per 100	2.07	12.33	3.01	2.68	31.16	5.40	2.63	28.91	5.11

[1] Not including field employees of the Post Office Department.
[2] Not including 729 employees of the Federal Emergency Administration of Public Works transferred from a temporary to a permanent status.
[3] Not including 461 employees of the Federal Emergency Administration of Public Works, transferred from a temporary to a permanent status.
[4] See notes to details.
[5] Less than one tenth of 1 percent.

Comparing October 1933 with September 1933, there was an increase of 2.2 percent in the number of permanent employees (half of this increase was caused by a transfer of 729 employees of the Public Works Administration from a temporary to a permanent status), and a decrease of 1.5 percent in the number of temporary employees in the District of Columbia, making a net increase of 1.9 percent in the total Federal employment in the city of Washington.

Comparing October 1933 with October 1932, there was an increase of three tenths of 1 percent in permanent employees and an increase of 156.5 percent in temporary employees, making an increase of 6.1 percent in the total number of employees in the District of Columbia. The large increase in temporary employment is caused by the setting up of a number of new independent establishments since October of last year.

Outside the District of Columbia, the number of permanent employees decreased 3.4 percent and the number of temporary employees increased 45.2 percent, comparing October 1933 pay rolls with those for October 1932.

Comparing October 1933 with September 1933, there was an increase of 0.3 percent in the number of permanent employees, an increase of 18.4 percent in the number of temporary employees, and an increase of 1.9 percent in total Federal employment.

Pay-roll figures for the entire Government service are presented herewith for the first time. The total Government pay roll for all classes of civil employees for the month of September was $70,609,548, October pay rolls totaled $74,407,443.

Table 2 shows employment and pay rolls for the Emergency Conservation Work.

There was an increase of 30,685 persons engaged in Emergency Conservation Work, comparing October with September. This increase was caused by recruiting additional enrolled personnel during the month.

TABLE 2.—EMPLOYMENT AND PAY ROLLS IN THE EMERGENCY CONSERVATION WORK, SEPTEMBER AND OCTOBER 1933

Group	Number		Pay rolls	
	September	October	September	October
Enrolled personnel	208,402	239,859	$6,508,392	$7,490,799
Reserve officers, line	2,902	3,298	678,676	(1)
Reserve officers, medical	986	1,074		
Supervisory and technical	14,744	13,488	1,754,485	1,605,140
Total	227,034	257,719	8,941,553	[2] 9,095,939

[1] Data not available. [2] Not including October pay rolls for Reserve officers, line and medical.

Information concerning employment and pay rolls in the Emergency Conservation Work is collected by the Bureau of Labor Statistics from the War Department and the Forest Service of the Department of Agriculture.

The pay of the enrolled enlisted personnel is $30 per month, except that 5 percent of the personnel of each company are paid $45 a month and an additional 8 percent are paid $36 per month. The pay roll for this branch of the service is figured on this basis. The amounts paid to Reserve officers, line and medical, are shown for September for the first time. Data for these branches will be supplied regularly hereafter.

Employment on Class I Steam Railroads in the United States

REPORTS of the Interstate Commerce Commission for class I railroads show that the number of employees (exclusive of executives and officials) decreased from 1,018,138 on September 15, 1933, to 1,011,110 on October 15, 1933, or 0.7 percent. Data are not yet available concerning total compensation of employees for October 1933. The latest pay-roll information available shows a decrease from $121,857,255 in August to $118,777,553 in September, or 2.5 percent.

The monthly trend of employment from January 1923 to October 1933 on class I railroads—that is, all roads having operating revenues of $1,000,000 or over—is shown by index numbers published in the following table. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the 12-month average for 1926 as 100.

TABLE 1.—INDEXES OF EMPLOYMENT ON **CLASS I STEAM RAILROADS** IN THE UNITED STATES, JANUARY 1923 TO OCTOBER 1933

[12-month average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
January	98.3	96.6	95.6	95.8	95.5	89.3	88.2	86.3	73.3	61.2	53.0
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7	60.3	52.7
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9	60.5	51.5
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5	60.0	51.8
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9	59.7	52.5
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8	57.8	53.6
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4	56.4	55.4
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2	55.0	[1] 56.8
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3	55.8	57.7
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7	57.0	57.3
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	64.5	55.9	-------
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	62.6	54.8	-------
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	70.6	57.9	[2] 54.2

[1] Revised. [2] Average for 10 months.

Table 2 shows the total number of employees by occupations on the 15th day of August and of September 1933 and by group totals on the 15th of October 1933; also, pay-roll totals for the entire months of August and September. Total compensation for the month of October is not yet available. Beginning in January 1933 the Interstate Commerce Commission excluded reports of switching and terminal companies from its monthly tabulations. The actual figures for the months shown in the following table therefore are not comparable with the totals published for the months prior to January 1933. The index numbers of employment for class I railroads shown in table 1 have been adjusted to allow for this revision and furnish a monthly indicator of the trend of employment from January 1923 to the latest month available. In these tabulations data for the occupational group reported as "executives, officials and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, AUGUST AND SEPTEMBER 1933

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups. Employment figures for October 1933 are available by group totals only at this time]

Occupation	Number of employees at middle of month			Total earnings	
	August 1933	September 1933	October 1933	August 1933	September 1933
Professional, clerical, and general	163,550	164,058	164,647	$22,086,339	$21,755,246
Clerks	85,853	86,295	----------	11,048,777	10,811,153
Stenographers and typists	15,366	15,376	----------	1,850,071	1,827,715
Maintenance of way and structures	219,055	224,753	217,430	17,335,030	16,976,799
Laborers, extra gang and work train	23,835	25,305	----------	1,313,580	1,329,913
Laborers, track and roadway section	118,615	121,658	----------	6,984,277	6,734,935
Maintenance of equipment and stores	274,397	278,881	275,889	30,911,586	29,646,178
Carmen	57,003	58,322	----------	7,234,396	6,917,320
Electrical workers	8,092	8,208	----------	1,110,818	1,067,127
Machinists	38,595	39,079	----------	5,147,086	4,899,397
Skilled trades helpers	61,092	62,304	----------	5,794,029	5,529,600
Laborers (shop, engine houses, power plants, and stores)	20,636	20,879	----------	1,606,556	1,552,596
Common laborers (shop, engine houses, power plants, and stores)	18,644	19,114	----------	1,167,174	1,107,924
Transportation, other than train, engine and yard	125,351	126,880	126,437	14,206,931	13,853,114
Station agents	24,266	24,232	----------	3,444,699	3,332,881
Telegraphers, telephoners, and towermen	14,930	14,979	----------	2,087,436	2,023,279
Truckers (stations, warehouses, and platforms)	17,930	18,660	----------	1,413,000	1,378,984
Crossings and bridge flagmen and gatemen	16,854	16,864	----------	1,140,930	1,131,901
Transportation (yardmaster, switch tenders, and hostlers)	12,238	12,264	12,383	2,095,668	2,047,246
Transportation, train and engine	207,586	211,302	214,324	35,221,701	34,498,970
Road conductors	22,828	23,195	----------	4,974,790	4,889,069
Road brakemen and flagmen	47,492	48,520	----------	6,696,554	6,648,085
Yard brakemen and yard helpers	35,989	36,686	----------	4,784,238	4,622,539
Road engineers and motormen	27,501	28,103	----------	6,657,199	6,555,842
Road firemen and helpers	30,193	30,803	----------	4,804,518	4,744,397
All employees	1,002,177	1,018,138	1,011,110	121,857,255	118,777,553

Employment Created by Public Works Fund

THE Bureau of Labor Statistics is charged with the duty of showing each month the number of wage earners employed on work financed from the $3,300,000,000 public-works fund.

Public-works allotments are divided into two large classes. First, Federal allotments; second, non-Federal allotments. Federal allotments are monies which have been alloted to some branch of the United States Government. They are financed wholly by public-works funds.

They include such types of projects as post-office buildings, built by the Procurement Division of the Treasury Department; naval vessels, built by the Bureau of Construction and Repair of the United States Navy Department; river, harbor, and flood-control work, supervised by the Corps of Engineers, War Department; and reclamation projects, such as the Boulder Dam and the Tennessee Valley project.

Whenever a contract is awarded by one of these Federal agencies, the name and address of the contractor, the type of project, and the amount of the contract is at once furnished to the Bureau of Labor Statistics. The Bureau then forwards a copy of its form (B.L.S. 742) to each of the contractors, asking for the number of wage earners employed, the amount of pay rolls, and the number of man-hours worked, as well as the total amount of expenditures for materials purchased, for all pay-roll periods ending between the 15th of the past month and the 15th of the current month. The contractor in turn mails the schedule back to the Bureau, where the data are tabulated.

Information concerning non-Federal projects are obtained from the State engineers of the Public Works Administration. Whenever a contract for a non-Federal project is awarded, the procedure is exactly the same as described for Federal projects. Non-Federal projects include such work as road and street paving, sewerage systems and water works, school buildings, public buildings of all kinds, and slum clearance and housing projects. The Public Works Administration grants 30 percent of the total cost of non-Federal projects, and if necessary will loan the remaining 70 percent.

In addition to the work done by contractors, some Government departments, cities, and States do work under force account—that is, they hire the labor directly. Data concerning force-account work are obtained in the same manner as for contract work, except that the schedules are made out by the Federal, State, county, or city agency doing the work.

The information shown in the following tables should be regarded as more or less of a preliminary report, as work financed from public-works fund is just getting under way.

Table 1 shows employment, pay rolls, and man-hours worked on projects financed from public-works funds, during October 1933, by type of project.

TABLE 1.—EMPLOYMENT, PAY ROLLS, AND MAN-HOURS WORKED ON PROJECTS FINANCED FROM PUBLIC-WORKS FUNDS DURING OCTOBER 1933, BY TYPE OF PROJECT

Type of project	Number of projects reported	Number of wage earners employed	Amount of pay roll	Number of man-hours worked	Average earnings per hour	Average number of hours worked in month	Expenditures for material
Building construction	66	4,157	$387,901	572,293	$0.678	137.7	$412,429
Public roads	1,664	94,350	[1]	[1]	[1]	[1]	[1]
River, harbor, and flood control	101	11,639	378,035	693,562	.545	59.6	849,249
Streets and roads [2]	20	1,230	62,354	100,437	.621	81.7	73,855
Naval vessels	34	3,626	401,294	515,149	.779	142.1	8,248,361
Reclamation	12	3,485	204,729	337,530	.607	96.9	168,880
Water and sewerage	5	253	7,929	12,692	.625	50.2	7,172
Miscellaneous	68	1,815	135,225	256,621	.527	141.4	[3] 697,285
Total	1,970	120,555	[4] 1,577,467	[4] 2,488,284	[4] .634	[4] 95.0	[4] 10,457,231

[1] Data not available.
[2] Other than those reported by the Bureau of Public Roads.
[3] Includes $544,385 worth of materials which cannot be charged to any specific type of project.
[4] Excluding data for Bureau of Public Roads.

For the month ending October 15, there were 120,555 employees directly engaged on construction jobs, excluding clerical and supervisory workers, whose wages were paid directly from public-works funds.

Of the 120,555 people directly put to work on public-works construction projects up to October 15, 94,350 were working under the supervision of the Bureau of Public Roads. No data concerning pay rolls, man-hours, or expenditures for materials were obtained from that Bureau. Beginning with the November figures, however, this information will be supplied.

Of the remaining 26,205 wage earners, the largest part were working on river, harbor, and flood-control projects. Building construction accounted for the employment of the third largest group.

The pay roll for workers, excluding those on public roads, totaled $1,577,467. As the men worked an aggregate of 2,488,284 hours, this makes an hourly rate of 63.4 cents. Pay rolls for work on naval vessels reached a larger total than pay rolls for any other type of project. River, harbor, and flood-control work created more hours of labor, however.

The average hourly rate of earnings for workers on naval vessels was 77.9 cents. All types of work, except river, harbor, flood-control, and miscellaneous projects paid an average of over 60 cents per hour.

Expenditures for materials ranged from less than $7,500 in the case of water and sewerage projects to over $8,000,000 in the case of naval vessels. During the month scheduled, $10,457,231 was expended for materials purchased by contractors reporting to the Bureau.

Table 2 shows employment, pay rolls, and man-hours worked during October on projects financed from public-works funds, by geographic divisions.

Of the 120,555 wage earners paid from public-works funds, over 20,000 worked in each of the following geographic divisions: Middle Atlantic States, West North Central States, and Mountain and Pacific States. The South Atlantic was the only geographic division having fewer than 10,000 workers paid from public-works funds.

The New England pay rolls reached a total of over $370,000; the Middle Atlantic, South Atlantic, and Mountain and Pacific had pay rolls totaling over $200,000.

The highest earnings per hour, 70.9 cents, were shown in the New England States. This was followed by 69.4 cents in the South Atlantic and 69.3 cents in the Middle Atlantic States.

By far the largest proportion of the material orders were placed by contractors located in the Middle Atlantic States. The preponderance of expenditures for materials to be used in the Middle Atlantic States was caused by the placing of an order for steel for battleship construction, amounting to over $7,000,000. Materials purchased to be used in the West North Central States cost nearly $700,000. In no other geographic division did expenditures for material total as much as $400,000. Following is a list of the kinds of materials purchased, together with the expenditures for each type.

TABLE 2.—EMPLOYMENT, PAY ROLLS, AND MAN-HOURS WORKED ON PROJECTS FINANCED FROM PUBLIC-WORKS FUNDS DURING OCTOBER 1933, BY GEOGRAPHIC DIVISIONS

Geographic division	Number of wage earners employed on—		Amount of pay roll [1]	Number of man-hours worked [1]	Average earnings per hour [1]	Average number of hours worked in month [1]	Expenditures for materials [1]
	Public roads	Projects other than public roads					
New England	12,363	3,898	$371,351	523,884	$0.709	134.4	$282,475
Middle Atlantic	20,550	2,286	201,459	290,745	.693	127.2	7,975,438
East North Central	9,522	3,124	116,901	179,373	.652	57.4	187,838
West North Central	16,803	5,731	170,548	316,620	.539	55.2	665,676
South Atlantic	6,241	3,395	273,203	393,776	.694	116.0	328,019
South Central	11,138	4,184	182,426	360,361	.506	86.1	194,733
Mountain and Pacific	17,733	3,587	261,579	423,525	.618	118.1	278,667
Total	94,350	26,205	1,577,467	2,488,284	.634	95.0	[2] 10,457,231

[1] Excluding data for public roads which are not available.
[2] Includes $544,385 worth of materials which cannot be charged to any specific geographic division.

Kind of materials	*Amount expended*
Cement	$71,373
Chemicals	11,804
Clay products	39,735
Concrete products	19,059
Cordage and twine	22,173
Crushed stone	90,301
Electrical machinery, apparatus, and supplies	40,567
Explosives	14,039
Forgings, iron and steel	10,274
Foundry and machine-shop products not elsewhere classified	52,748
Hardware, miscellaneous	22,906
Instruments, professional and scientific	250,812
Lighting equipment	34,000
Lumber and timber products not elsewhere classified	722,778
Machine tools	56,818
Marble, granite, slate, and other stone products	38,787
Minerals and earths, ground or otherwise treated	13,996
Nonferrous-metal alloys; nonferrous-metal products, except aluminum, not elsewhere specified	153,281
Paving materials and mixtures	43,244
Planing-mill products	22,707
Pumps and pumping equipment	13,281
Refrigerators, mechanical	38,235
Sand and gravel	13,164
Smelting and refining, lead	11,660
Steel-works and rolling-mill products	8,378,478
Structural and ornamental metalwork, not made in plants operated in connection with rolling mills	80,964
Wire, drawn from purchased rods	43,963
Other	146,084
Total	10,457,231

It will be seen from this list that manufacturers of many classes of materials will profit by the public-works program. It is estimated that the fabrication of the materials purchased will give employment to approximately 27,000 people.

As already stated, this report must be classified as preliminary. Up to October 15 the construction program of the Public Works Administration had not as yet assumed full force.

Employment on Public Roads

THE following table shows the number of employees (excluding those employed on road projects financed from public-works funds) engaged in building and maintaining State and Federal roads during September and October 1933, by geographic divisions.

NUMBER OF EMPLOYEES ENGAGED IN THE CONSTRUCTION AND MAINTENANCE OF PUBLIC ROADS, STATE AND FEDERAL, DURING SEPTEMBER AND OCTOBER 1933, BY GEOGRAPHIC DIVISIONS[1]

Geographic division	Federal		State	
	September	October	September	October
New England	3,359	2,640	22,979	16,103
Middle Atlantic	7,872	5,103	47,121	45,815
East North Central	16,220	10,357	40,884	53,210
West North Central	7,594	5,482	27,780	32,527
South Atlantic	9,204	7,040	42,249	43,970
South Central	18,058	14,163	24,869	22,217
Mountain and Pacific	17,573	12,087	16,976	16,129
Total	79,880	56,872	222,858	229,971
Percent of change		−28.8		+3.2

[1] Exclusive of employment furnished by projects financed from public-works funds.

During the month of October there were 56,872 men employed on Federal road projects other than those financed from the public-works fund. This is a decrease of 28.8 percent as compared with September. The reason for the decrease in employees on Federal road work is that very few contracts are being awarded for road building from Federal funds outside of the public-works fund. There was an increase of over 64,000 in the number of people employed on public-road work financed from P.W.A. funds.

The number of people engaged on highway projects financed from State funds increased 3.2 percent in October as compared with September. The increases were confined to the East North Central, the West North Central, and the South Atlantic States. Decreases were shown in the other four divisions, with New England registering the largest falling-off in employment. Most of the employees working on road projects financed from State funds were engaged in maintenance work. Out of a total of 229,971 in October, 171,260, or 74.5 percent, were working at maintaining existing roads.

Unemployment in Foreign Countries

THE table following gives statistics of unemployment in foreign countries, as shown in official reports for the years 1927 to 1932, inclusive, and by months beginning with August 1932 to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES

Year and date (end of month)	Australia		Austria	Belgium			
	Trade-unionists unemployed		Compulsory insurance, number of unemployed in receipt of benefit	Unemployment-insurance societies			
				Wholly unemployed		Partially unemployed	
	Number	Percent		Number	Percent	Number	Percent
1927	31,032	7.0	172,450	11,112	1.8	23,763	3.9
1928	45,669	10.8	156,185	5,386	.9	22,293	3.5
1929	47,359	11.1	164,509	8,462	1.3	18,831	3.0
1930	84,767	19.3	208,389	23,250	3.6	50,918	7.9
1931	117,866	27.4	253,368	79,186	10.9	121,890	16.9
1932	120,454	29.4	309,969	161,468	19.0	175,259	20.7
1932							
August	(1)		269,188	167,212	19.5	170,081	19.9
September	122,340	29.6	275,840	163,048	18.3	166,160	18.9
October	(1)		297,791	157,023	17.7	148,812	16.8
November	(1)		329,707	154,657	17.7	144,583	16.3
December	115,042	28.1	367,829	171,028	18.6	155,669	16.9
1933							
January			397,920	207,136	22.1	196,237	20.9
February			401,321	201,305	21.0	185,052	19.3
March	109,182	26.5	379,693	195,715	20.1	186,942	19.2
April			350,552	180,143	18.2	187,222	18.8
May			320,955	162,781	16.4	176,174	17.7
June	106,652	25.7	307,873	145,881	14.4	158,005	15.5
July			300,762	142,119	13.7	168,653	16.3
August			291,224	135,105	13.5	162,361	16.3
September	104,560	25.1	279,053				
October			280,401				

Year and date (end of month)	Canada	Czechoslovakia			Danzig, Free City of	Denmark	
	Percent of trade-unionists unemployed	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed	
			Number	Percent		Number	Percent
1927	4.9	52,869	17,626	1.6		61,705	22.5
1928	4.5	38,636	16,342	1.4		50,226	18.5
1929	5.7	41,630	23,763	2.2	12,905	42,817	15.5
1930	11.1	105,442	52,047	4.6	18,291	39,631	13.7
1931	16.8	291,332	102,179	8.3	24,898	53,019	17.9
1932	22.0	554,059	184,555	13.5	33,244	99,508	31.7
1932							
August	21.4	460,952	172,118	12.5	28,989	95,770	30.5
September	20.4	486,935	170,772	12.3	30,469	96,076	30.4
October	22.0	533,616	173,706	12.4	31,806	101,518	31.8
November	22.8	608,809	190,779	13.5	35,507	113,273	35.6
December	25.5	746,311	239,959	16.9	39,042	138,335	42.8
1933							
January	25.5	872,775	300,210	20.5	40,726	141,354	43.5
February	24.3	920,182	305,036	20.7	39,843	139,331	42.8
March	25.1	877,955	295,297	20.2	38,313	116,762	35.4
April	24.5	797,516	264,530	17.9	36,205	95,619	28.9
May	23.8	726,629	247,687	16.6	33,372	84,201	25.4
June	21.8	675,933	236,007	15.8	29,622	73,565	21.9
July	21.2	640,360	226,243	15.1	28,714	74,756	21.7
August	19.9	625,836	224,375	15.0	26,400	72,559	21.4
September	19.8	622,561			25,219	74,139	22.0
October	19.8	[2] 627,121				82,300	23.6

[1] Not reported.

[2] Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and date (end of month)	Estonia	Finland	France	Germany			
					Trade-unionists		
	Number unemployed remaining on live register	Number of unemployed registered	Number of unemployed in receipt of benefit	Number of unemployed registered	Percent wholly unemployed	Percent partially unemployed	Number unemployed in receipt of benefit
1927	3,037	1,868	33,549	1,353,000	8.7	3.4	
1928	2,629	1,735	4,993	1,353,000	8.6	5.7	1,029,694
1929	3,181	3,906	905	1,678,824	13.2	7.5	1,451,137
1930	3,054	7,993	2,432	3,144,910	22.2	13.4	2,158,049
1931	3,632	11,522	54,587	4,573,218	34.3	20.0	2,757,999
1932	7,121	17,581	264,845	5,579,858	43.8	22.6	2,535,601
1932							
August	3,256	16,966	264,253	5,223,810	44.0	23.2	1,991,985
September	5,957	18,563	259,237	5,102,750	43.6	22.7	1,849,768
October	8,901	19,908	247,090	5,109,173	42.9	22.6	1,720,577
November	10,715	21,690	255,411	5,355,428	43.2	22.1	1,768,602
December	13,727	20,289	277,109	5,772,852	45.1	22.7	2,073,101
1933							
January	16,511	23,178	315,364	6,013,612	46.2	23.7	2,372,066
February	15,437	20,731	330,874	6,000,958	47.4	24.1	2,455,428
March	14,512	19,083	313,518	5,598,855	52.7	22.2	2,165,891
April	11,680	17,732	309,101	5,331,252	46.3	22.6	1,938,910
May	4,857	13,082	282,545	5,038,640	44.7	21.6	1,801,930
June	2,822	11,479	256,197	4,856,942	[1]	[1]	1,726,676
July	1,568	13,437	239,449	4,463,841	[1]	[1]	1,647,155
August	2,046	15,269	235,590	4,124,288	26.3	17.1	1,530,452
September	3,881	17,134	226,375	3,849,222			
October			232,632	3,744,860			

Year and date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		Irish Free State
	Compulsory insurance					Trade-unionists unemployed		
	Wholly unemployed		Temporary stoppages		Number of persons registered with employment exchanges	Christian (Budapest)	Social Democratic	Compulsory insurance—number unemployed
	Number	Percent	Number	Percent				
1927	899,093	7.4	263,077	2.3	1,107,000			21,100
1928	980,326	8.2	309,903	2.6	1,355,000			22,721
1929	994,091	8.2	268,400	2.2	1,281,000	852	15,322	20,860
1930	1,467,347	11.8	526,604	4.3	2,297,000	951	21,339	22,176
1931	2,129,359	16.7	587,494	4.6	2,668,000	977	27,635	25,230
1932	2,272,590	17.6	573,805	4.5	2,757,000	1,026	29,772	[3] 62,817
1932								
August	2,215,704	17.4	731,104	5.7	2,859,828	947	28,186	[3] 57,081
September	2,279,779	17.9	645,286	5.0	2,858,011	1,022	27,860	[3] 80,923
October	2,295,500	17.9	515,405	4.0	2,747,006	1,091	28,654	[3] 70,067
November	2,328,920	18.2	520,105	4.0	2,799,806	1,072	29,336	[3] 102,747
December	2,314,528	18.1	461,274	3.6	2,723,287	1,106	30,967	[3] 102,619
1933								
January	2,422,808	18.9	532,640	4.2	2,903,065	1,178	31,431	[3] 95,577
February	2,394,106	18.7	520,808	4.1	2,856,638	1,210	30,955	[3] 88,747
March	2,310,062	18.0	511,309	4.0	2,776,184	1,131	29,771	[3] 82,503
April	2,200,397	17.2	536,882	4.2	2,697,634	1,080	28,521	[3] 70,039
May	2,128,614	16.6	497,705	3.9	2,582,879	1,104	26,778	[3] 65,296
June	2,029,185	15.8	468,868	3.7	2,438,108	1,061	26,209	[3] 60,578
July	2,000,923	15.6	506,850	4.0	2,442,175	938	24,881	[3] 56,230
August	1,970,379	15.4	488,365	3.8	2,411,137			[3] 55,590
September	1,976,870	15.4	398,214	3.1	2,336,726			[3] 58,937
October	[2] 1,974,000	15.4	[3] 362,000	2.8	2,298,753			[3] 71,586

[1] Provisional figure.

[3] Registration area extended.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and date (end of month)	Italy		Japan		Latvia	Netherlands	
	Number of unemployed registered		Official estimates, unemployed		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
	Wholly unemployed	Partially unemployed	Number	Percent		Number	Percent
1927	278,484	97,054			3,131	26,868	9.0
1928	324,422	38,457			4,700	22,009	6.9
1929	300,787	16,154			5,617	27,775	7.5
1930	425,437	23,408	368,465	5.2	4,851	41,281	9.7
1931	734,454	28,721	413,248	5.9	8,709	87,659	18.2
1932	1,006,442	33,468	489,168	6.9	14,582	162,638	30.1
1932							
August	945,972	33,666	509,580	7.1	9,650	116,524	22.9
September	949,408	37,043	505,969	7.0	8,762	126,510	24.9
October	956,357	32,556	503,958	7.0	13,806	128,961	25.2
November	1,038,757	36,349	484,213	6.7	17,621	142,554	27.6
December	1,129,654	37,644	463,403	6.4	17,247	188,252	31.5
1933							
January	1,225,470	33,003	444,032	6.1	14,777	226,709	37.6
February	1,229,387	34,506	438,250	6.1	13,886	187,652	31.1
March	1,081,536	29,129	424,287	5.8	13,087	165,367	27.3
April	1,025,754	51,871	414,392	5.7	10,377	147,531	24.3
May	1,000,128	45,183	429,295	5.9	5,993	123,447	25.3
June	883,621	38,815	428,708	5.9	3,769	117,805	22.5
July	824,195	[4] 229,217	418,177	5.8	3,690	118,346	22.6
August	888,560	[4] 259,640			3,930	113,988	21.9
September	907,463				3,017	116,237	22.4
October	962,868					119,092	23.0

Year and date (end of month)	New Zealand	Norway			Poland	Rumania
	Number unemployed registered by employment exchanges [3]	Trade-unionists (10 unions) unemployed		Number unemployed remaining on live register	Number unemployed registered with employment offices	Number unemployed remaining on live register
		Number	Percent			
1927		8,561	25.4	23,889	165,340	
1928		6,502	19.2	21,759	125,552	10,373
1929	2,895	5,902	15.4	19,089	129,450	7,288
1930	5,037	7,175	16.6	19,353	226,659	25,338
1931	41,430		23.3	27,479	299,502	35,851
1932	51,549	14,790	30.8	33,831	255,582	38,890
1932						
August	56,332	13,084	26.9	27,543	187,537	29,654
September	55,855	14,358	29.3	31,431	147,166	21,862
October	54,549	15,512	31.6	35,082	146,982	28,172
November	52,477	16,717	34.2	38,807	177,459	30,651
December	52,533	20,735	42.4	41,571	220,245	38,471
1933						
January	51,698	19,249	39.3	40,642	264,258	44,797
February	49,971	19,673	40.0	42,460	287,219	45,371
March	51,035	18,992	38.5	42,437	279,779	44,294
April	53,171	17,678	35.7	39,846	258,954	37,532
May	55,477	15,335	30.9	35,803	235,356	30,336
June	56,563	13,532	27.2	30,394	224,566	24,685
July	57,169	12,995	26.0	25,918	213,806	21,084
August	56,750	14,204	28.4	27,459	204,364	20,173
September	[3] 56,694			32,848	200,030	17,551
October				35,223	211,926	

[3] Provisional figure.
[4] New series, coverage extended in middle of year 1932.
[5] Includes not only workers wholly unemployed but also those intermittently employed.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Year and date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
	Number of unemployed registered	Trade-unionists unemployed		Unemployment funds				Number of unemployed registered
		Number	Percent	Wholly unemployed		Partially unemployed		
				Number	Percent	Number	Percent	
1927		31,076	12.0		2.7		2.0	
1928		29,716	10.6		2.1		1.1	6,781
1929	6,591	32,621	10.7		1.8		1.7	8,465
1930	9,286	42,016	12.2		3.4		7.2	8,198
1931	20,963	64,815	17.2		5.9		12.1	10,018
1932	41,373	89,922	22.8		9.1		12.2	14,761
1932								
August	38,858	80,975	20.0	36,600	7.6	53,400	11.1	11,940
September	40,320	86,709	20.7	38,070	7.8	52,967	10.8	10,985
October	40,728	92,868	22.2	42,300	8.7	52,100	10.6	10,474
November	41,962	97,666	23.8	50,500	10.3	55,700	11.3	11,670
December	44,311	129,002	31.4	66,053	13.3	59,089	11.9	14,248
1933								
January	45,700	120,156	28.8	83,400	17.0	56,000	11.4	23,574
February	45,101	118,251	27.4	81,800	16.5	57,400	11.6	25,346
March	42,258	121,456	28.4	60,698	12.0	52,575	10.4	22,609
April	40,082	110,055	26.1	49,100	9.8	47,400	9.6	19,671
May	37,341	93,360	22.2	43,600	8.7	44,100	8.9	15,115
June	36,492	89,485	21.1	40,958	8.0	40,431	7.9	14,492
July	35,053	83,771	20.0	39,200	7.8	37,500	7.5	11,710
August	34,840	76,686	19.7	39,200	7.8	38,400	7.6	9,841
September	35,287	77,013	19.6	38,578	7.3			10,043

RETAIL PRICES

THE Bureau of Labor Statistics of the United States Department of Labor has since 1913 collected, compiled, and issued, as of the 15th of each month, retail prices of food. From time to time the work has been expanded by including additional cities and articles. The Bureau now covers 51 localities well scattered throughout the continental United States and also the Territory of Hawaii. Retail prices are secured for 45 of the principal articles of food.

In order that current information may be available oftener, the Bureau is now collecting these prices every 2 weeks. The plan was inaugurated during August 1933 and prices are being collected every other Tuesday.

Retail prices of coal were collected on January 15 and July 15 for the years 1913 through 1919 from the cities covered in the retail-food study. Beginning with June 1920, prices have been collected on the 15th of each month. No change has been made in the dates for the collection of retail prices of coal. A summary of prices and index numbers for earlier years and for current months is shown in a section of this publication.

Retail Prices of Food in October 1933

RETAIL prices of food were collected by the Bureau for two periods during the month, namely, October 10 and 24. Prices were received from the same dealers and the same cities were covered as have been included in the Bureau's reports for former periods. For August 29, however, a representative number of reports was not received from some of the cities, and average prices for the United States as a whole for this date are not strictly comparable with average prices shown for other dates. The index numbers, however, have been adjusted by using the percent of change in identical cities and are, therefore, comparable with indexes of other periods.

Three commodities have been added to the Bureau's list of food items beginning with August 29. These items are rye bread, canned peaches, and canned pears. Only average prices can be shown for these articles as corresponding prices for the year 1913 are not available for the purpose of index numbers.

Data for the tabular statements shown in this report are compiled from simple averages of the actual selling prices as reported to the Bureau by retail dealers in the 51 cities. Comparable information for months and years, 1913 to 1928, inclusive, is shown in Bulletins Nos. 396 and 495; and by months and years, 1929 to 1932, inclusive, in the January, February, and April 1933 issues of this publication.

Indexes of all articles, combined, or groups of articles combined, both for cities and for the United States, are weighted according to

the average family consumption. Consumption figures used since January 1921 are given in Bulletin 495 (p. 13). Those used for prior dates are given in Bulletin 300 (p. 61). The list of articles included in the groups, cereals, meats, and dairy products, will be found in the May 1932 issue of this publication.

Table 1 shows index numbers of the total weighted retail cost of important food articles and of three groups of these articles; viz, cereals, meats, and dairy products, in the United States, 51 cities combined, by years, 1913 to 1932, inclusive, and on specified days of the months of 1932 and 1933. These index numbers are based on the year 1913 as 100.

TABLE 1.—INDEX NUMBERS OF THE TOTAL RETAIL COST OF FOOD AND OF CEREALS MEATS, AND DAIRY PRODUCTS IN THE UNITED STATES BY YEARS, 1913 TO 1932, INCLUSIVE, AND ON SPECIFIED DATES OF EACH MONTH, JAN. 15, 1932, TO OCT. 24, 1933, INCLUSIVE

[1913=100]

Year	All food	Cereals	Meats	Dairy products
1913	100.0	100.0	100.0	100.0
1914	102.4	106.7	103.4	97.1
1915	101.3	121.6	99.6	96.1
1916	113.7	126.8	108.2	103.2
1917	146.4	186.5	137.0	127.6
1918	168.3	194.3	172.8	153.4
1919	185.9	198.0	184.2	176.6
1920	203.4	232.1	185.7	185.1
1921	153.3	179.8	158.1	149.5
1922	141.6	159.3	150.3	135.9
1923	146.2	156.9	149.0	147.6
1924	145.9	160.4	150.2	142.8
1925	157.4	176.2	163.0	147.1
1926	160.6	175.5	171.3	145.5
1927	155.4	170.7	169.9	148.7
1928	154.3	167.2	179.2	150.0
1929	156.7	164.1	188.4	148.6
1930	147.1	158.0	175.8	136.5
1931	121.3	135.9	147.0	114.6
1932	102.1	121.1	116.0	96.6
1932				
Jan. 15	109.3	126.4	123.4	106.5
Feb. 15	105.3	125.0	117.3	102.9
Mar. 15	105.0	124.3	118.9	101.9
Apr. 15	103.7	122.9	118.6	97.4
May 15	101.3	122.6	115.3	94.3
June 15	100.1	122.5	113.4	92.6
July 15	101.0	121.2	122.6	91.4
Aug. 15	100.8	120.4	120.1	93.1
Sept. 15	100.3	119.2	119.2	93.5
Oct. 15	100.4	119.0	114.6	93.8
Nov. 15	99.4	118.0	109.1	93.9
Dec. 15	98.7	114.8	103.2	95.9
1933				
Jan. 15	94.8	112.3	99.9	93.3
Feb. 15	90.9	112.0	99.0	90.3
Mar. 15	90.5	112.3	100.1	88.3
Apr. 15	90.4	112.8	98.8	88.7
May 15	93.7	115.8	100.1	92.2
June 15	96.7	117.2	103.7	93.5
July 15	104.8	128.0	103.5	97.7
Aug. 15	106.7	137.8	105.7	96.5
Aug. 29	107.1	138.8	106.9	97.5
Sept. 12	107.0	140.2	104.4	97.8
Sept. 26	107.4	142.7	107.8	97.9
Oct. 10	107.3	143.8	107.3	98.6
Oct. 24	106.6	143.3	106.3	98.4

The following chart shows the trend in the retail cost of all food and of the classified groups, cereals, meats, and dairy products in the United States (51 cities) from January 15, 1929, to October 24, 1933, inclusive.

Table 2 shows index numbers of the total weighted retail cost of important food articles and of cereals, meats, and dairy products in the United States based on the year 1913 as 100, and changes on October 24, 1933, compared with October 15, 1932, and September 26 and October 10, 1933.

Table 3 shows the average retail prices of principal food articles for the United States, and index numbers for 23 of these articles based on the year 1913, for October 15, 1932, and September 12 and 26 and October 10 and 24, 1933.

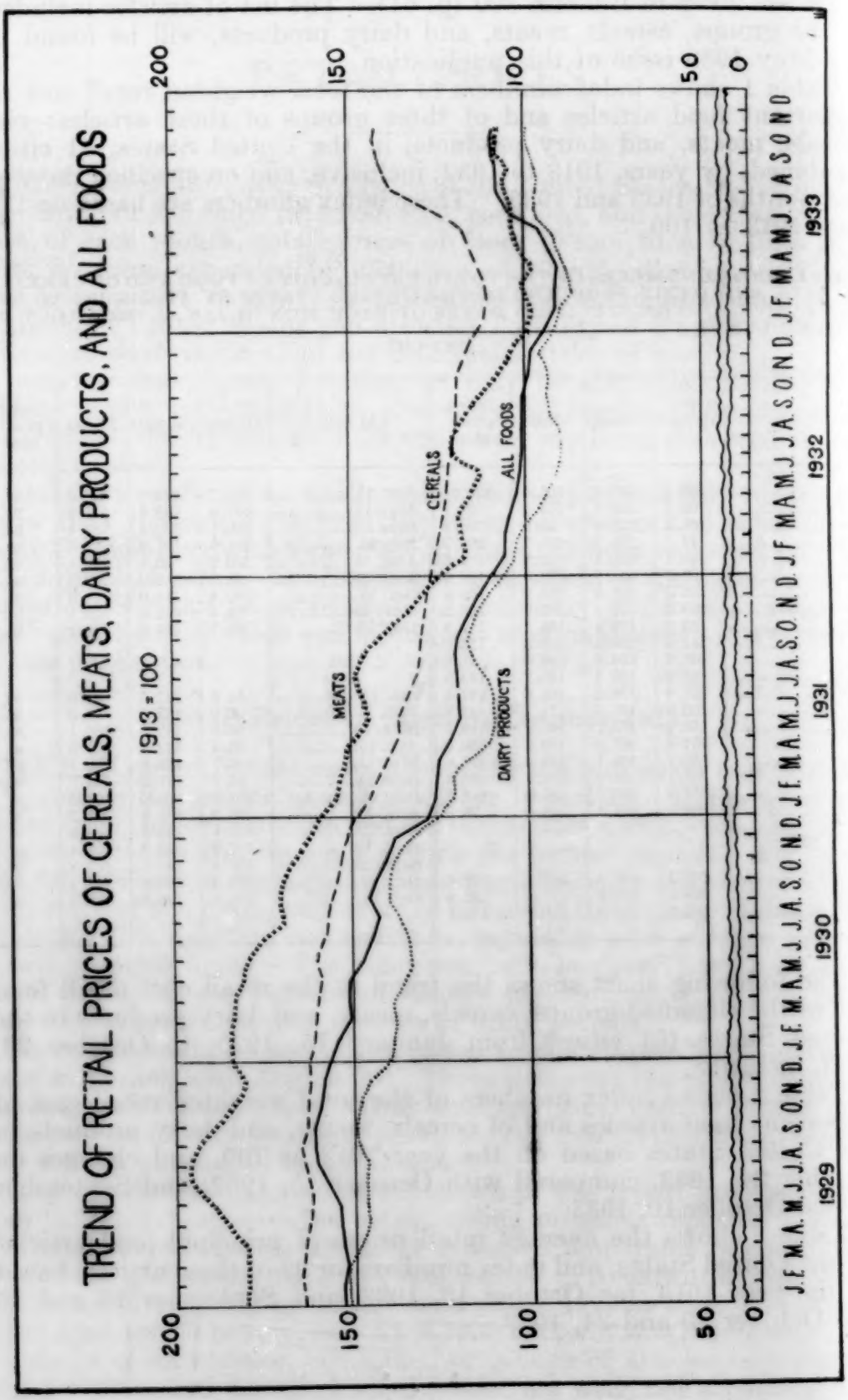

TREND OF RETAIL PRICES OF CEREALS, MEATS, DAIRY PRODUCTS, AND ALL FOODS
1913 = 100
200
150
100
50
0
MEATS
CEREALS
ALL FOODS
DAIRY PRODUCTS
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1929
1930
1931
1932
1933

TABLE 2.—INDEX NUMBERS OF THE TOTAL WEIGHTED RETAIL COST OF FOOD AND OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES ON SPECIFIED DATES, AND PERCENT OF CHANGE, OCT. 24, 1933, COMPARED WITH OCT. 15, 1932, AND SEPT. 26 AND OCT. 10, 1933

Article	Index 1913=100					Percent of change Oct. 24, 1933, compared with—		
	1932	1933						
	Oct. 15	Sept. 12	Sept. 26	Oct. 10	Oct. 24	Oct. 15, 1932	Sept. 26, 1933	Oct. 10, 1933
All food	100.4	107.0	107.4	107.3	106.6	+6.2	−0.7	−0.7
Cereals	119.0	140.2	142.7	143.6	143.3	+20.4	+0.4	−0.3
Meats	114.6	104.4	107.8	107.3	106.3	−7.2	−1.4	−0.9
Dairy products	93.8	97.8	97.9	98.6	98.4	+4.9	+0.5	−0.2

TABLE 3.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES ON OCT. 15, 1932, SEPT. 12 AND 26, AND OCT. 10 AND 24, 1933

Article	Average price					Index number [1] (1913=100)				
	1932	1933				1932	1933			
	Oct. 15	Sept. 12	Sept. 26	Oct. 10	Oct. 24	Oct. 15	Sept. 12	Sept. 26	Oct. 10	Oct. 24
	Cents	*Cents*	*Cents*	*Cents*	*Cents*					
Sirloin steak, pound	33.1	30.1	30.1	29.9	29.5	130.3	118.5	118.5	117.7	116.1
Round steak, do	28.9	26.2	26.1	25.9	25.8	129.6	117.5	117.0	116.1	115.7
Rib roast, do	23.7	20.9	21.0	21.0	20.8	119.7	105.6	106.1	106.1	105.1
Chuck roast, do	17.3	15.3	15.4	15.3	15.3	108.1	95.6	96.3	95.6	95.6
Plate beef, do	11.3	9.9	9.9	10.1	10.1	93.4	81.8	81.8	83.5	83.5
Pork chops, do	21.5	21.7	23.8	23.7	23.1	102.4	103.3	113.3	112.9	110.0
Bacon, sliced, do	23.2	23.1	23.2	23.3	23.3	85.9	85.6	85.9	86.3	86.3
Ham, sliced, do	34.0	32.4	32.5	32.3	32.0	126.4	120.4	120.8	120.1	119.0
Lamb, leg of, do	22.1	22.3	22.2	21.9	21.5	116.9	118.0	117.5	115.9	113.8
Hens, do	23.1	20.4	20.9	20.5	20.5	108.5	95.8	98.1	96.2	96.2
Salmon, red, canned, 16-oz. can	20.0	20.4	20.6	20.8	20.7					
Milk, fresh, quart	10.7	11.0	11.0	11.1	11.1	120.2	123.6	123.6	124.7	124.7
Milk, evaporated, 14½-oz. can	6.1	6.9	6.8	6.8	6.8					
Butter, pound	26.7	27.9	28.1	28.3	28.2	69.7	72.8	73.4	73.9	73.6
Margarine, do	14.3	13.6	13.5	13.4	13.3					
Cheese, do	22.6	23.5	23.5	23.4	23.2	102.3	106.3	106.3	105.9	105.0
Lard, do	9.0	9.6	9.6	9.6	9.5	57.0	60.8	60.8	60.8	60.1
Vegetable lard substitute, do	19.1	19.0	19.0	19.0	19.0					
Eggs, strictly fresh, dozen	34.6	28.3	30.3	32.5	33.4	100.3	82.0	87.8	94.2	96.8
Bread, wheat, pound	6.7	7.7	7.9	8.0	8.0	119.6	137.5	141.1	142.9	142.9
Bread, rye, do		8.5	8.6	8.6	8.6					
Flour, do	3.1	4.9	4.9	4.9	4.8	93.9	148.5	148.5	148.5	145.5
Cornmeal, do	3.7	4.0	4.0	3.9	3.9	123.3	133.3	133.3	130.0	130.0
Rolled oats, do	7.4	6.4	6.5	6.5	6.5					
Corn flakes, 8-oz. package	8.5	8.7	8.7	8.7	8.8					
Wheat cereal, 28-oz. package	22.4	23.7	23.7	23.9	24.0					
Macaroni, pound	15.1	15.6	15.7	15.8	15.8					
Rice, do	6.4	6.6	6.7	6.8	6.8	73.6	75.9	77.0	78.2	78.2
Beans, navy, do	4.9	6.3	6.3	6.2	6.0					
Potatoes, do	1.5	3.1	2.8	2.5	2.3	88.2	182.4	164.7	147.1	135.3
Onions, do	2.8	3.9	3.7	3.5	3.4					
Cabbage, do	2.4	3.6	3.5	3.3	3.2					
Pork and beans, 16-oz. can	6.9	6.8	6.9	6.8	6.9					
Corn, canned, no. 2 can	10.3	10.5	10.6	10.8	10.9					
Peas, canned, do	12.6	13.3	13.3	13.5	13.5					
Tomatoes, canned, do	9.0	9.6	9.8	9.8	9.9					
Sugar, pound	5.1	5.7	5.7	5.7	5.7	92.7	103.6	103.6	103.6	103.6
Tea, do	68.5	66.0	66.4	66.8	66.8	125.9	121.3	122.1	122.8	122.8
Coffee, do	30.3	26.7	26.6	26.6	26.6	101.7	89.6	89.3	89.3	89.3
Prunes, do	8.9	10.1	10.3	10.4	10.6					
Raisins, do	10.7	9.4	9.4	9.4	9.4					
Bananas, dozen	21.7	25.1	25.4	24.6	24.7					
Oranges, do	30.5	28.7	29.9	29.8	29.7					
Peaches, canned, no. 2½ can		17.0	17.1	17.1	17.2					
Pears, canned, do		20.5	20.4	20.6	20.5					

[1] No prices were secured in 1913 for the articles for which index numbers are not shown.

Table 4 shows index numbers of the weighted retail cost of food for the United States and 39 cities, based on the year 1913 as 100. The percents of change on October 24, 1933, compared with October 15, 1932, and September 26 and October 10, 1933, are also given for these cities and the United States and for 12 additional cities from which prices were not secured in 1913.

TABLE 4.—INDEX NUMBERS OF THE TOTAL WEIGHTED RETAIL COST OF FOOD BY CITIES AND FOR THE UNITED STATES, ON SPECIFIED DATES AND PERCENT OF CHANGE OCT. 24, 1933, COMPARED WITH OCT. 15, 1932, AND SEPT. 26 AND OCT. 10, 1933

City	Index 1913=100					Percent of change Oct. 24, 1933, compared with—		
	1932	1933						
	Oct. 15	Sept. 12	Sept. 26	Oct. 10	Oct. 24	Oct. 15, 1932	Sept. 26, 1933	Oct. 10, 1933
United States	100.4	107.0	107.4	107.3	106.6	+6.2	−0.8	−0.7
Atlanta	97.7	105.4	104.6	104.1	104.7	+7.2	+.1	+.6
Baltimore	104.6	110.5	110.8	113.4	112.9	+7.9	+1.9	−.5
Birmingham	99.9	103.0	102.9	103.6	103.8	+3.9	+.9	+.2
Boston	102.6	108.6	108.5	108.4	107.4	+4.6	−1.0	−1.0
Bridgeport						+3.7	−1.2	−1.2
Buffalo	104.5	112.6	113.0	112.1	111.8	+6.9	−1.1	−.3
Butte						+.5	−1.7	−.6
Charleston, S.C.	103.3	108.0	108.5	107.9	107.3	+3.9	−1.1	−.5
Chicago	109.5	111.0	111.0	110.0	110.0	+.5	−.9	(1)
Cincinnati	96.3	106.1	106.9	108.6	107.6	+11.7	+.6	−1.0
Cleveland	93.8	105.6	106.0	105.5	102.4	+9.2	−3.3	−2.9
Columbus						+11.7	−1.9	−1.7
Dallas	95.4	103.8	103.7	102.5	103.5	+8.5	−.2	+1.0
Denver	94.7	101.2	100.1	100.5	100.6	+6.2	+.5	+.1
Detroit	9.. 2	108.8	109.4	107.8	105.4	+14.3	−3.7	−2.3
Fall River	98.9	105.5	106.9	106.7	105.6	+6.8	−1.2	−1.0
Houston						+8.7	+.9	+.3
Indianapolis	94.4	104.4	101.9	101.2	99.7	+5.6	−2.1	−1.4
Jacksonville	92.6	99.8	101.5	99.7	98.8	+6.7	−2.7	−.9
Kansas City	99.3	105.7	105.0	103.5	101.7	+2.4	−3.2	−1.8
Little Rock	91.3	96.9	97.9	96.7	96.7	+6.0	−1.2	(1)
Los Angeles	92.5	101.9	102.1	101.3	101.8	+10.0	−.4	+.4
Louisville	91.7	105.8	104.2	103.6	101.9	+11.2	−2.2	−1.6
Manchester	101.1	108.5	108.5	108.3	107.2	+6.0	−1.2	−1.0
Memphis	92.4	98.9	100.3	99.6	98.5	+6.6	−1.7	−1.1
Milwaukee	102.0	109.8	108.8	107.0	107.9	+5.8	−.9	+.9
Minneapolis	98.5	104.4	106.8	106.9	105.6	+7.1	−1.1	−1.3
Mobile						+5.2	−2.0	+.1
Newark	105.3	106.5	109.1	109.6	108.5	+3.0	−.6	−1.0
New Haven	106.4	112.3	113.1	113.7	112.0	+5.2	−1.1	−1.5
New Orleans	99.1	107.4	107.0	106.2	105.9	+6.9	−1.0	−.3
New York	109.8	112.4	115.2	116.3	114.4	+4.2	−.7	−1.6
Norfolk						+3.7	+1.9	+1.4
Omaha	93.3	98.6	101.9	101.1	100.2	+7.4	−1.7	−.9
Peoria						+9.0	+1.3	+1.9
Philadelphia	105.1	110.1	111.0	110.9	110.8	+5.5	−.2	(1)
Pittsburgh	99.1	103.9	105.2	105.3	104.8	+5.8	−.3	−.4
Portland, Maine						+3.9	(1)	+.3
Portland, Oreg	95.1	96.7	95.9	95.9	96.0	+.9	+.1	+.1
Providence	101.6	109.0	110.4	110.1	109.1	+7.4	−1.1	−.9
Richmond	104.7	110.9	111.1	112.0	110.3	+5.3	−.8	−1.6
Rochester						+9.1	−1.4	−.4
St. Louis	99.3	110.2	109.1	107.9	107.6	+8.4	−1.3	−.3
St. Paul						+9.1	−.4	+.4
Salt Lake City	87.2	90.1	91.0	91.5	90.9	+4.3	−.2	−.7
San Francisco	106.3	110.2	109.1	108.8	110.3	+3.7	+1.1	+1.3
Savannah						+8.0	−.7	−1.1
Scranton	105.9	113.4	114.5	113.8	114.5	+8.1	−.1	+.6
Seattle	97.9	105.3	104.1	103.3	103.6	+5.8	−.5	+.3
Springfield, Ill						+6.6	−2.3	−.6
Washington	107.4	113.3	114.3	114.8	115.0	+7.1	+.6	+.1
Hawaii:								
Honolulu						+2.3		+.9
Other localities						+3.5		+.6

[1] No change.

Retail Prices of Coal on October 15, 1933

RETAIL prices of coal as of the 15th of each month are secured from each of the 51 cities from which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

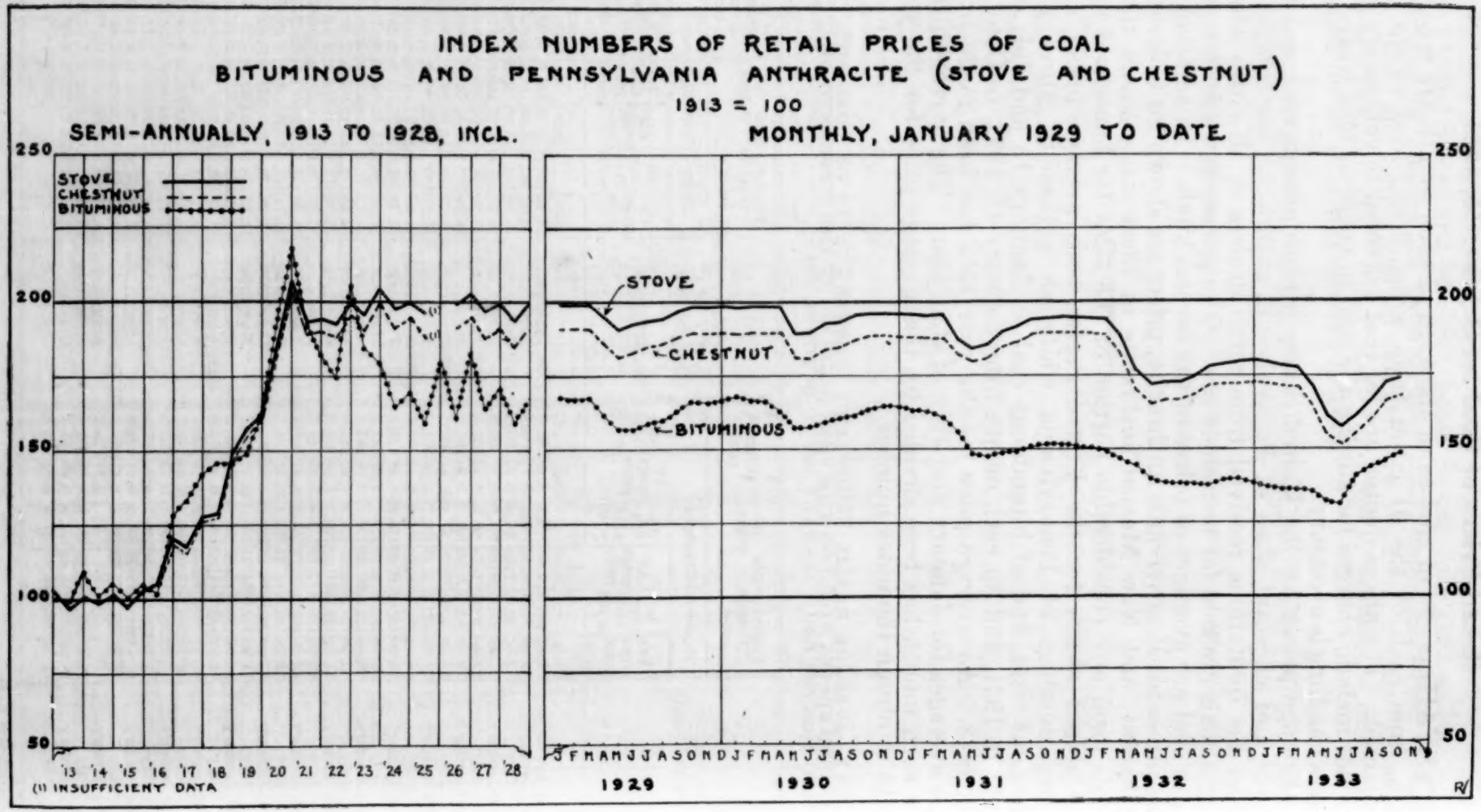
Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use. The prices shown for bituminous coal are averages of prices of the several kinds. In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

Table 1 shows for the United States both average prices and index numbers of Pennsylvania white-ash anthracite, stove and chestnut sizes, and of bituminous coal on January 15 and July 15, 1913 to 1931, and for each month from January 15, 1932, to October 15, 1933. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the index number.

TABLE 1.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF COAL FOR THE UNITED STATES BASED ON THE YEAR 1913 AS 100, ON THE FIFTEENTH OF SPECIFIED MONTHS FROM JANUARY 1913 TO OCTOBER 1933

Year and month	Pennsylvania anthracite, white ash—				Bituminous		Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut					Stove		Chestnut			
	Average price	Index 1913 = 100	Average price	Index 1913 = 100	Average price	Index 1913 = 100		Average price	Index 1913 = 100	Average price	Index 1913 = 100	Average price	Index 1913 = 100
	Dols.		*Dols.*		*Dols.*			*Dols.*		*Dols.*		*Dols.*	
1913: Av. for yr.	7.73	100.0	7.91	100.0	5.43	100.0	1928: January	15.44	199.8	15.08	190.6	9.30	171.1
January	7.99	103.4	8.15	103.0	5.48	100.8	July	14.91	192.9	14.63	184.9	8.69	159.9
July	7.46	96.6	7.68	97.0	5.39	99.2	1929: January	15.38	199.1	15.06	190.3	9.09	167.2
1914: January	7.80	100.9	8.00	101.0	5.97	109.9	July	14.94	193.4	14.63	184.8	8.62	158.6
July	7.60	98.3	7.78	98.3	5.46	100.6	1930: January	15.33	198.4	15.00	189.5	9.11	167.6
1915: January	7.83	101.3	7.99	101.0	5.71	105.2	July	14.84	192.1	14.53	183.6	8.65	159.1
July	7.54	97.6	7.73	97.7	5.44	100.1	1931: January	15.12	195.8	14.88	188.1	8.87	163.2
1916: January	7.93	102.7	8.13	102.7	5.69	104.8	July	14.61	189.1	14.59	184.3	8.09	148.9
July	8.12	105.2	8.28	104.6	5.52	101.6	1932: January	15.00	194.2	14.97	189.1	8.17	150.3
1917: January	9.29	120.2	9.40	118.8	6.96	128.1	February	14.98	193.9	14.95	188.9	8.14	149.7
July	9.08	117.5	9.16	115.7	7.21	132.7	March	14.54	188.2	14.45	182.6	8.01	147.4
1918: January	9.88	127.9	10.03	126.7	7.68	141.3	April	13.62	176.3	13.46	170.0	7.85	144.5
July	9.96	128.9	10.07	127.3	7.92	145.8	May	13.30	172.2	13.11	165.6	7.60	139.9
1919: January	11.51	149.0	11.61	146.7	7.90	145.3	June	13.36	173.0	13.16	166.3	7.53	138.6
July	12.14	157.2	12.17	153.8	8.10	149.1	July	13.37	173.0	13.16	166.2	7.50	138.0
1920: January	12.59	162.9	12.77	161.3	8.81	162.1	August	13.50	174.8	13.28	167.9	7.52	138.4
July	14.28	184.9	14.33	181.1	10.55	194.1	September	13.74	177.9	13.52	170.8	7.54	138.7
1921: January	15.99	207.0	16.13	203.8	11.82	217.6	October	13.79	178.5	13.58	171.5	7.60	139.9
July	14.90	192.8	14.95	188.9	10.47	192.7	November	13.83	178.9	13.60	171.9	7.59	139.7
1922: January	14.98	193.9	15.02	189.8	9.89	182.0	December	13.87	179.5	13.65	172.5	7.51	138.3
July	14.87	192.4	14.92	188.5	9.49	174.6	1933: January	13.82	178.9	13.61	171.9	7.46	137.3
1923: January	15.43	199.7	15.46	195.3	11.18	205.7	February	13.75	178.0	13.53	171.0	7.45	137.0
July	15.10	195.5	15.05	190.1	10.04	184.7	March	13.70	177.3	13.48	170.4	7.43	136.7
1924: January	15.77	204.1	15.70	199.1	9.75	179.5	April	13.22	171.1	13.00	164.3	7.37	135.6
July	15.24	197.2	15.10	190.7	8.94	164.5	May	12.44	161.0	12.25	154.8	7.17	132.0
1925: January	15.45	200.0	15.37	194.2	9.24	170.0	June	12.18	157.6	12.00	151.6	7.18	132.1
July	15.14	196.0	14.93	188.6	8.61	158.5	July	12.47	161.3	12.26	155.0	7.64	140.7
1926: January	(1)	(1)	(1)	(1)	9.74	179.3	August	12.85	166.3	12.65	159.8	7.77	143.0
July	15.43	199.7	15.19	191.9	8.70	160.1	September	13.33	172.5	13.12	165.8	7.94	146.0
1927: January	15.66	202.7	15.42	194.8	9.96	183.3	October	13.45	174.1	13.23	167.2	8.08	148.7
July	15.15	196.1	14.81	187.1	8.91	163.9							

[1] Insufficient data.


INDEX NUMBERS OF RETAIL PRICES OF COAL
BITUMINOUS AND PENNSYLVANIA ANTHRACITE (STOVE AND CHESTNUT)
1913 = 100
SEMI-ANNUALLY, 1913 TO 1928, INCL.
MONTHLY, JANUARY 1929 TO DATE
STOVE
CHESTNUT
BITUMINOUS
250
200
150
100
50
'13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28
(1) INSUFFICIENT DATA
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N
1929
1930
1931
1932
1933

The preceding chart shows the trend in retail prices of stove and chestnut sizes of Pennsylvania anthracite and of bituminous coal in the United States. The trend is shown semiannually for the years 1913 to 1928, inclusive, and by months from January 15, 1929, to October 15, 1933, inclusive.

Table 2 shows average retail prices per ton of 2,000 pounds and index numbers (1913=100) for the United States on October 15, 1932, and September 15 and October 15, 1933, and percentage change in the year and in the month.

TABLE 2.—AVERAGE RETAIL PRICES AND INDEX NUMBERS OF COAL FOR THE UNITED STATES; AND PERCENT OF CHANGE ON OCT. 15, 1933, COMPARED WITH OCT. 15, 1932, AND SEPT. 15, 1933

Article	Average retail price and index number			Percent of change Oct. 15, 1933, compared with—	
	Oct. 15, 1932	Sept. 15, 1933	Oct. 15, 1933	Oct. 15, 1932	Sept. 15, 1933
Pennsylvania anthracite:					
Stove:					
Average price per 2,000 pounds	$13.79	$13.33	$13.45	−2.5	+0.9
Index (1913=100)	178.5	172.5	174.1		
Chestnut:					
Average price per 2,000 pounds	$13.58	$13.12	$13.23	−2.6	+.8
Index (1913=100)	171.5	165.8	167.2		
Bituminous:					
Average price per 2,000 pounds	$7.60	$7.94	$8.08	+6.3	+1.8
Index (1913=100)	139.9	146.0	148.7		

Table 3 shows average retail prices of coal for household use by cities on October 15, 1932, and September 15 and October 15, 1933, as reported by local dealers in each city.

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, OCT. 15, 1932, AND SEPT. 15 AND OCT. 15, 1933, BY CITIES

City and kind of coal	1932	1933		City and kind of coal	1932	1933	
	Oct. 15	Sept. 15	Oct. 15		Oct. 15	Sept. 15	Oct. 15
Atlanta, Ga.:				Charleston, S.C.:			
Bituminous, prepared sizes	$6.20	$6.52	$6.92	Bituminous, prepared sizes	$8.67	$8.59	$9.92
Baltimore, Md.:				Chicago, Ill.:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove	13.25	13.00	13.25	Stove	15.75	13.91	13.98
Chestnut	12.75	12.75	13.00	Chestnut	15.51	13.70	13.77
Bituminous:				Bituminous:			
Prepared sizes:				Prepared sizes:			
Low volatile	8.75	9.06	9.25	High volatile	7.20	7.99	8.09
Run of mine:				Low volatile	9.98	10.44	10.57
High volatile	6.86	7.39	7.50	Run of mine:			
Birmingham, Ala.:				Low volatile	7.17	7.70	7.78
Bituminous, prepared sizes	5.13	5.38	6.00	Cincinnati, Ohio:			
Boston, Mass.:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Stove	13.75	13.75	13.75	High volatile	5.25	5.54	6.06
Chestnut	13.50	13.50	13.50	Low volatile	7.50	7.38	7.83
Bridgeport, Conn.:				Cleveland, Ohio:			
Pennsylvania anthracite:				Pennsylvania anthracite:			
Stove	13.00	13.75	13.75	Stove	13.69	12.44	12.44
Chestnut	13.00	13.75	13.75	Chestnut	13.44	12.19	12.19
Buffalo, N.Y.:				Bituminous:			
Pennsylvania anthracite:				Prepared sizes:			
Stove	12.49	12.85	12.85	High volatile	5.64	5.82	6.34
Chestnut	12.24	12.60	12.60	Low volatile	8.36	8.82	9.07
Butte, Mont.:							
Bituminous, prepared sizes	9.75	9.70	9.70				

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 PUNDS, FOR HOUSEHOLD USE, OCT. 15, 1932, AND SEPT. 15 AND OCT. 15, 1933, BY CITIES—Continued

City and kind of coal	1932	1933	
	Oct. 15	Sept. 15	Oct. 15
Columbus, Ohio:			
Bituminous:			
Prepared sizes:			
High volatile	$5.04	$5.50	$6.15
Low volatile	6.67	6.88	7.54
Dallas, Tex.:			
Arkansas anthracite, egg	14.00	13.50	13.50
Bituminous, prepared sizes	10.00	10.00	10.00
Denver, Colo.:			
Colorado anthracite:			
Furnace, 1 and 2 mixed	14.50	14.75	15.00
Stove, 3 and 5 mixed	14.50	14.75	15.00
Bituminous, prepared sizes	7.61	7.39	7.66
Detroit, Mich.:			
Pennsylvania anthracite:			
Stove	13.29	12.02	12.58
Chestnut	13.13	12.02	12.36
Bituminous:			
Prepared sizes:			
High volatile	6.03	6.30	6.90
Low volatile	7.26	7.42	7.55
Run of mine:			
Low volatile	6.50	6.70	6.70
Fall River, Mass.:			
Pennsylvania anthracite:			
Stove	14.50	14.50	14.50
Chestnut	14.25	14.25	14.25
Houston, Tex.:			
Bituminous, prepared sizes	9.60	10.60	11.60
Indianapolis, Ind.:			
Bituminous:			
Prepared sizes:			
High volatile	5.07	5.64	5.83
Low volatile	7.71	7.70	8.25
Run of mine:			
Low volatile	6.05	6.50	7.13
Jacksonville, Fla.:			
Bituminous, prepared sizes	9.00	10.75	11.13
Kansas City, Mo.:			
Arkansas anthracite:			
Furnace	10.75	10.38	10.50
Stove no. 4	12.25	12.33	12.50
Bituminous, prepared sizes	5.64	5.61	5.61
Little Rock, Ark.:			
Arkansas anthracite, egg	10.75	10.50	10.50
Bituminous, prepared sizes	8.28	8.17	8.17
Los Angeles, Calif.:			
Bituminous, prepared sizes	16.25	17.30	17.30
Louisville, Ky.:			
Bituminous:			
Prepared sizes:			
High volatile	4.68	5.20	5.61
Low volatile	7.25	7.44	7.94
Manchester, N.H.:			
Pennsylvania anthracite:			
Stove	14.83	15.00	15.00
Chestnut	14.83	15.00	15.00
Memphis, Tenn.:			
Bituminous, prepared sizes	5.67	6.69	6.68
Milwaukee, Wis.:			
Pennsylvania anthracite:			
Stove	15.05	13.25	13.25
Chestnut	14.80	13.00	13.00
Bituminous:			
Prepared sizes:			
High volatile	6.97	7.27	7.52
Low volatile	9.29	9.37	9.62
Minneapolis, Minn.:			
Pennsylvania anthracite:			
Stove	17.25	15.50	15.50
Chestnut	17.00	15.25	15.25
Bituminous:			
Prepared sizes:			
High volatile	9.60	10.09	9.91
Low volatile	11.85	12.24	12.24
Mobile, Ala.:			
Bituminous, prepared sizes	$7.16	$7.77	$8.46
Newark, N.J.:			
Pennsylvania anthracite:			
Stove	12.19	12.60	12.80
Chestnut	11.94	12.20	12.55
New Haven, Conn.:			
Pennsylvania anthracite:			
Stove	13.65	13.50	13.90
Chestnut	13.65	13.50	13.90
New Orleans, La.:			
Bituminous, prepared sizes	8.07	9.07	9.07
New York, N.Y.:			
Pennsylvania anthracite:			
Stove	12.46	12.65	12.60
Chestnut	12.21	12.40	12.35
Norfolk, Va.:			
Pennsylvania anthracite:			
Stove	13.00	13.50	14.00
Chestnut	13.00	13.50	14.00
Bituminous:			
Prepared sizes:			
High volatile	6.50	7.00	7.50
Low volatile	8.00	8.50	9.00
Run of mine:			
Low volatile	6.50	7.00	7.50
Omaha Nebr.;			
Bituminous, prepared sizes	8.77	8.52	8.52
Peoria, Ill.:			
Bituminous:			
Prepared sizes:			
High volatile	6.11	6.39	6.46
Low volatile	------	------	9.29
Philadelphia, Pa.:			
Pennsylvania anthracite:			
Stove	11.75	12.25	12.25
Chestnut	11.50	12.00	12.00
Pittsburgh, Pa.:			
Pennsylvania anthracite:			
Chestnut	12.88	12.38	12.38
Bituminous, prepared sizes	4.00	4.64	4.86
Portland, Maine:			
Pennsylvania anthracite:			
Stove	15.84	14.50	14.50
Chestnut	15.60	14.25	14.25
Portland, Oreg.:			
Bituminous, prepared sizes	11.86	12.99	12.96
Providence, R.I.:			
Pennsylvania anthracite:			
Stove	[1] 14.50	[1] 14.50	[1] 14.75
Chestnut	[1] 14.25	[1] 14.25	[1] 14.50
Richmond, Va.:			
Pennsylvania anthracite:			
Stove	13.38	13.75	13.75
Chestnut	13.38	13.75	13.75
Bituminous:			
Prepared sizes:			
High volatile	6.83	7.33	7.33
Low volatile	7.98	8.40	8.40
Run of mine:			
Low volatile	6.71	6.75	6.75
Rochester, N.Y.:			
Pennsylvania anthracite:			
Stove	13.38	13.23	13.10
Chestnut	13.13	12.98	12.85
St. Louis, Mo.:			
Pennsylvania anthracite:			
Stove	15.16	13.91	13.91
Chestnut	15.16	13.72	13.72
Bituminous, prepared sizes	5.45	5.61	5.50
St. Paul, Minn.:			
Pennsylvania anthracite:			
Stove	17.35	15.50	15.50
Chestnunt	17.10	15.25	15.25

[1] The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bins.

TABLE 3.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, OCT. 15, 1932, AND SEPT. 15 AND OCT. 15, 1933, BY CITIES—Continued

City and kind of coal	1932	1933	
	Oct. 15	Sept. 15	Oct. 15
St. Paul, Minn.—Contd.			
Bituminous:			
Prepared sizes:			
High volatile	$9.40	$9.98	$10.00
Low volatile	11.87	12.33	12.33
Salt Lake City, Utah:			
Bituminous, prepared sizes	7.39	7.79	7.79
San Francisco, Calif.:			
New Mexico anthracite:			
Cerillos egg	25.00	25.63	25.63
Colorado anthracite:			
Egg	24.50	25.11	25.11
Bituminous, prepared sizes	15.00	15.98	16.06
Savannah, Ga.:			
Bituminous, prepared sizes	[3] 8.45	[3] 9.94	[3] 10.04
Scranton, Pa.:			
Pennsylvania anthracite:			
Stove	9.27	8.81	8.81
Chestnut	9.00	8.56	8.56
Seattle, Wash.:			
Bituminous, prepared sizes	$9.86	$9.73	$9.69
Springfield, Ill.:			
Bituminous, prepared sizes	3.79	3.73	4.06
Washington, D.C.:			
Pennsylvania anthracite:			
Stove	[3] 14.46	[3] 14.45	[3] 14.45
Chestnut	[3] 14.15	[3] 14.15	[3] 14.15
Bituminous:			
Prepared sizes:			
High volatile	[3] 8.29	[3] 8.33	[3] 8.69
Low volatile	[3] 10.21	[3] 9.97	[3] 10.31
Run of mine:			
Mixed	[3] 7.50	[3] 7.70	[3] 7.88

[3] All coal sold in Savannah is weighted by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

[3] Per ton of 2,240 pounds.

WHOLESALE PRICES

Index Numbers of Wholesale Prices, 1913 to October 1933

THE following table presents the index numbers of wholesale prices by groups of commodities, by years, from 1913 to 1932, inclusive, and by months from January 1932 to date:

INDEX NUMBERS OF WHOLESALE PRICES

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.3	93.1	69.8
1914	71.2	64.7	70.9	54.6	56.6	80.2	52.7	81.4	56.8	89.9	68.1
1915	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9	69.5
1916	84.4	75.7	93.4	70.4	74.3	116.5	67.6	160.7	61.4	100.6	85.5
1917	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1	117.5
1918	148.0	119.1	125.7	137.2	109.2	136.5	98.6	182.3	93.3	134.4	131.3
1919	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1	138.6
1920	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5	154.4
1921	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2	97.6
1922	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8	96.7
1923	98.6	92.7	104.2	111.3	97.3	109.3	108.7	101.1	108.9	99.7	100.6
1924	100.0	91.0	101.5	106.7	92.0	106.3	102.3	98.9	104.9	93.6	98.1
1925	109.8	100.2	105.3	108.3	96.5	103.2	101.7	101.8	103.1	109.0	103.5
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1927	99.4	96.7	107.7	95.6	88.3	96.3	94.7	96.8	97.5	91.0	95.4
1928	105.9	101.0	121.4	95.5	84.3	97.0	94.1	95.6	95.1	85.4	96.7
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.2	94.3	82.6	95.3
1930	88.3	90.5	100.0	80.3	78.5	92.1	89.9	89.1	92.7	77.7	86.4
1931	64.8	74.6	86.1	66.3	67.5	84.5	79.2	79.3	84.9	69.8	73.0
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.5	75.1	64.4	64.8
1932:											
January	52.8	64.7	79.3	59.6	67.9	81.8	74.8	75.7	77.7	65.6	67.3
February	50.6	62.5	78.3	59.5	68.3	80.9	73.4	75.5	77.5	64.7	66.3
March	50.2	62.3	77.3	58.0	67.9	80.8	73.2	75.3	77.1	64.7	66.0
April	49.2	61.0	75.0	56.1	70.2	80.3	72.5	74.4	76.3	64.7	65.5
May	46.6	59.3	72.5	54.3	70.7	80.1	71.5	73.6	74.8	64.4	64.4
June	45.7	58.8	70.8	52.7	71.6	79.9	70.8	73.1	74.7	64.2	63.9
July	47.9	60.9	68.6	51.5	72.3	79.2	69.7	73.0	74.0	64.3	64.5
August	49.1	61.8	69.7	52.7	72.1	80.1	69.6	73.3	73.6	64.6	65.2
September	49.1	61.8	72.2	55.6	70.8	80.1	70.5	72.9	73.7	64.7	65.3
October	46.9	60.5	72.8	55.0	71.1	80.3	70.7	72.7	73.7	64.1	64.4
November	46.7	60.6	71.4	53.9	71.4	79.6	70.7	72.4	73.7	63.7	63.9
December	44.1	58.3	69.6	53.0	69.3	79.4	70.8	72.3	73.6	63.4	62.6
1933:											
January	42.6	55.8	68.9	51.9	66.0	78.2	70.1	71.6	72.9	61.2	61.0
February	40.9	53.7	68.0	51.2	63.6	77.4	69.8	71.3	72.3	59.2	59.8
March	42.8	54.6	68.1	51.3	62.9	77.2	70.3	71.2	72.2	58.9	60.2
April	44.5	56.1	69.4	51.8	61.5	76.9	70.2	71.4	71.5	57.8	60.4
May	50.2	59.4	76.9	55.9	60.4	77.7	71.4	73.2	71.7	58.9	62.7
June	53.2	61.2	82.4	61.5	61.5	79.3	74.7	73.7	73.4	60.8	65.0
July	60.1	65.5	86.3	68.0	65.3	80.6	79.5	73.2	74.8	64.0	68.9
August	57.6	64.8	91.7	74.6	65.5	81.2	81.3	73.1	77.6	65.4	69.5
September	57.0	64.9	92.3	76.9	70.4	82.1	82.7	72.7	79.3	65.1	70.8
October	55.7	64.2	89.0	77.1	73.6	83.0	83.9	72.7	81.2	65.3	71.2

INDEX NUMBERS OF SPECIFIED GROUPS OF COMMODITIES

[1926=100]

Year	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods	Month	Raw materials	Semi-manufactured articles	Finished products	Non-agricultural commodities	All commodities other than farm products and foods
1913	68.8	74.9	69.4	69.0	70.0	1932:					
1914	67.6	70.0	67.8	66.8	66.4	January	58.3	63.1	72.1	70.3	71.7
1915	67.2	81.2	68.9	68.5	68.0	February	56.9	61.9	71.4	69.6	71.3
1916	82.6	118.3	82.3	85.3	88.3	March	56.1	60.8	71.5	69.3	70.9
1917	122.6	150.4	109.2	113.1	114.2	April	55.5	59.6	71.1	68.9	70.9
1918	135.8	153.8	124.7	125.1	124.6	May	53.9	58.1	70.3	68.1	70.4
1919	145.9	157.9	130.6	131.6	128.8	June	53.2	57.6	70.0	67.8	70.1
1920	151.8	198.2	149.8	154.8	161.3	July	54.7	55.5	70.5	68.0	69.7
1921	88.3	96.1	103.3	100.1	104.9	August	55.7	57.9	70.7	68.5	70.1
1922	96.0	98.9	96.5	97.3	102.4	September	56.2	60.7	70.4	68.7	70.4
1923	98.5	118.6	99.2	100.9	104.3	October	54.6	60.7	69.6	68.1	70.2
1924	97.6	108.7	96.3	97.1	99.7	November	54.2	58.9	69.3	67.5	69.8
1925	106.7	105.3	100.6	101.4	102.6	December	52.1	57.7	68.4	66.5	69.0
1926	100.0	100.0	100.0	100.0	100.0	1933:					
1927	96.5	94.3	95.0	94.6	94.0	January	50.2	56.9	66.7	64.9	67.3
1928	99.1	94.5	95.9	94.8	92.9	February	48.4	56.3	65.7	63.7	66.0
1929	97.5	93.9	94.5	93.3	91.6	March	49.4	56.9	65.7	63.8	65.8
1930	84.3	81.8	88.0	85.9	85.2	April	50.0	57.3	65.7	63.7	65.3
1931	65.6	69.0	77.0	74.6	75.0	May	53.7	61.3	67.2	65.4	66.5
1932	55.1	59.3	70.3	68.3	70.2	June	56.2	65.3	69.0	67.4	68.9
						July	61.8	69.1	72.2	70.7	72.2
						August	60.6	71.7	73.4	72.0	74.1
						September	61.7	72.9	74.8	73.7	76.1
						October	61.8	72.8	75.4	74.4	77.2

Weekly Index Numbers of Wholesale Prices

A SUMMARIZATION of the weekly index numbers for the 10 major groups of commodities and for all commodities combined as issued during the month of October 1933 will be found in the following statement:

INDEX NUMBERS OF WHOLESALE PRICES FOR WEEKS OF OCT. 7, 14, 21, AND 28, 1933

[1926=100]

Group	Week ending—			
	Oct. 7	Oct. 14	Oct. 21	Oct. 28
All commodities	71.3	71.1	70.4	70.9
Farm products	57.5	56.7	54.2	55.6
Foods	65.0	64.8	63.7	64.2
Hides and leather products	91.8	88.8	88.8	87.7
Textile products	76.3	76.2	76.2	76.3
Fuel and lighting materials	73.4	73.8	74.0	74.5
Metals and metal products	82.4	82.3	82.0	82.4
Building materials	83.7	83.9	83.6	83.5
Chemicals and drugs	72.7	72.7	72.6	72.7
House-furnishing goods	81.1	81.2	81.3	81.3
Miscellaneous	65.0	65.0	64.9	65.2

Purchasing Power of the Dollar, 1913 to October 1933

CHANGES in the buying power of the dollar expressed in terms of wholesale prices from 1913 to October 1933 are shown in the following table. The figures in this table are reciprocals of the index numbers. To illustrate, the index number representing the level of all commodities at wholesale in October 1933 with average prices for the year 1926 as the base, is shown to be 71.2. The reciprocal of this index number is 0.01404 which, translated into dollars, and cents becomes $1.404. The table shows that the dollar expanded so much in its buying value that $1 of 1926 had increased in value to $1.404 in October 1933 in the purchase of all commodities at wholesale.

The purchasing power of the dollar for all groups and subgroups of commodities for the current month will be found on page 1543.

PURCHASING POWER OF THE DOLLAR EXPRESSED IN TERMS OF WHOLESALE PRICES

[1926=$1]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913	$1.399	$1.558	$1.468	$1.745	$1.631	$1.101	$1.764	$1.247	$1.776	$1.074	$1.433
1914	1.404	1.546	1.410	1.832	1.767	1.247	1.898	1.229	1.761	1.112	1.468
1915	1.399	1.529	1.325	1.848	1.931	1.159	1.869	.893	1.786	1.151	1.439
1916	1.185	1.321	1.071	1.420	1.346	.858	1.479	.622	1.629	.994	1.170
1917	.775	.957	.808	1.013	.949	.664	1.134	.606	1.348	.819	.851
1918	.676	.840	.796	.729	.916	.733	1.014	.549	1.072	.744	.762
1919	.635	.772	.574	.739	.959	.764	.865	.637	.944	.719	.722
1920	.664	.728	.584	.607	.611	.669	.666	.607	.705	.597	.648
1921	1.131	1.104	.916	1.058	1.033	.851	1.027	.870	.885	.916	1.025
1922	1.066	1.142	.956	.998	.932	.972	1.028	.997	.966	1.078	1.034
1923	1.014	1.079	.960	.898	1.028	.915	.920	.989	.918	1.003	.994
1924	1.000	1.099	.985	.937	1.087	.941	.978	1.011	.953	1.068	1.019
1925	.911	.998	.950	.923	1.036	.969	.983	.982	.970	.917	.966
1926	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1927	1.006	1.034	.929	1.046	1.133	1.038	1.056	1.033	1.026	1.099	1.048
1928	.944	.990	.824	1.047	1.186	1.031	1.063	1.046	1.052	1.171	1.034
1929	.953	1.001	.917	1.106	1.205	.995	1.048	1.062	1.060	1.211	1.049
1930	1.133	1.105	1.000	1.245	1.274	1.086	1.112	1.122	1.079	1.287	1.157
1931	1.543	1.340	1.161	1.508	1.481	1.183	1.263	1.261	1.178	1.433	1.370
1932	2.075	1.639	1.372	1.821	1.422	1.247	1.401	1.361	1.332	1.553	1.543
1932: January	1.894	1.546	1.261	1.678	1.473	1.222	1.337	1.321	1.287	1.524	1.486
February	1.976	1.600	1.277	1.681	1.464	1.236	1.362	1.325	1.290	1.546	1.508
March	1.992	1.605	1.294	1.724	1.473	1.238	1.366	1.328	1.297	1.546	1.515
April	2.033	1.639	1.333	1.783	1.425	1.245	1.379	1.344	1.311	1.546	1.527
May	2.146	1.686	1.379	1.842	1.414	1.248	1.399	1.359	1.337	1.553	1.553
June	2.188	1.701	1.412	1.898	1.397	1.252	1.412	1.368	1.339	1.558	1.565
July	2.088	1.642	1.458	1.942	1.383	1.263	1.435	1.370	1.351	1.555	1.550
August	2.037	1.618	1.435	1.898	1.387	1.248	1.437	1.364	1.359	1.548	1.534
September	2.037	1.618	1.385	1.799	1.412	1.248	1.418	1.372	1.357	1.546	1.531
October	2.132	1.653	1.374	1.818	1.406	1.245	1.414	1.376	1.357	1.560	1.553
November	2.141	1.650	1.401	1.855	1.401	1.256	1.414	1.381	1.357	1.570	1.565
December	2.268	1.715	1.437	1.887	1.443	1.259	1.412	1.383	1.359	1.577	1.597
1933: January	2.347	1.792	1.451	1.927	1.515	1.279	1.427	1.397	1.372	1.634	1.639
February	2.445	1.862	1.471	1.953	1.572	1.292	1.433	1.403	1.383	1.689	1.672
March	2.336	1.832	1.468	1.949	1.590	1.295	1.422	1.404	1.385	1.698	1.661
April	2.247	1.783	1.441	1.931	1.626	1.300	1.425	1.401	1.399	1.730	1.656
May	1.992	1.684	1.300	1.789	1.656	1.287	1.401	1.366	1.395	1.698	1.595
June	1.880	1.634	1.214	1.626	1.626	1.261	1.339	1.357	1.362	1.645	1.538
July	1.664	1.527	1.159	1.471	1.531	1.241	1.258	1.366	1.337	1.563	1.451
August	1.736	1.543	1.091	1.340	1.527	1.232	1.230	1.368	1.289	1.529	1.439
September	1.754	1.541	1.083	1.300	1.420	1.218	1.209	1.376	1.261	1.536	1.412
October	1.795	1.558	1.124	1.297	1.359	1.205	1.192	1.376	1.232	1.531	1.404

Processing Taxes and the Price Index

The Agricultural Adjustment Act provided that "to obtain revenue for extraordinary expenses incurred by reason of the national economic emergency, there shall be levied processing taxes * * *"[1] In accordance with this act, the Secretary of Agriculture established a processing tax of 30 cents a bushel on wheat effective July 10, 1933. There was also declared effective August 1, 1933, a processing tax of 4.2 cents per pound on cotton. On September 14, the Secretary of Agriculture announced a processing tax, effective October 1, on leaf tobacco of 1.7 cents per pound for Maryland tobacco and 3 cents per pound for tobacco from other States.

In all cases these taxes are to be collected by the Bureau of Internal Revenue on "the first domestic processing" of each raw material. No tax is to be paid by the purchaser of the raw materials when such materials are to be used for purposes of feeding or otherwise by the farmer. The tax is to be paid by the purchaser of the raw materials when such materials are to be processed or converted into other items for further sale.

As considerable portions of these raw materials are not purchased for processing it is not justifiable to include these taxes in regular market quotations. The index number of the Bureau of Labor Statistics, showing the general trend of wholesale commodity prices, represents market prices and therefore prices used in the calculation of these indexes for articles subject to the processing tax do not include such taxes.

In order that the effect of processing taxes on the index numbers of the Bureau of Labor Statistics may be shown, there has been calculated a series of wholesale price indexes for the major and subgroups of farm products upon which taxes have been assessed, for the period during which they have been effective. The following tabular statement shows the comparison of the regular series of index numbers of the Bureau for farm products with the indexes based upon prices including processing taxes.

INDEX NUMBERS OF WHOLESALE PRICES OF FARM PRODUCTS WITH AND WITHOUT PROCESSING TAXES

Month	Grains		Other farm products		All farm products	
	Without tax	With tax	Without tax	With tax	Without tax	With tax
July	73.4	83.2	----------	----------	60.1	61.7
August	64.6	77.5	62.5	67.7	57.6	62.5
September	63.9	76.8	61.2	66.8	57.0	62.1
October	58.2	71.1	61.2	67.5	55.7	61.2

It will be seen from the above that the index numbers of the individual groups of farm products have been affected by the processing tax. The index number for grains for October, excluding the tax on wheat, was 58.2 as compared with 71.1 when the tax was included, showing a differential of over 22 percent between the two figures. The index number for other farm products for the same month, excluding the tax on cotton and tobacco, was 61.2. Including these taxes the index is 67.5. The differential between the two

[1] Pt. 2, sec. 9, par. a, H.B. 3835, approved May 12, 1933.

series was more than 11 percent. For all farm products for the month of October, the index number of the regular series is 55.7 as compared with 61.2 with all taxes added, showing a differential of 11 percent between the two indexes.

The corn-hog ratio has been announced as effective November 5, with the following provisions: Until December 1, the tax on corn is announced as 5 cents per bushel of 56 pounds, and effective December 1, the rate of tax shall be 20 cents per bushel of 56 pounds. For hogs, the following taxes have been announced: Effective November 5, 50 cents per 100 pounds live weight; December 1, $1 per hundredweight; January 1, 1934, $1.50 per hundredweight; and February 1, 1934, $2 per hundredweight. The effect of these latter taxes will be shown in the November index.

Wholesale Price Trends During October 1933

WHOLESALE commodity prices continued their rise during the month of October. The index number of the general level of wholesale prices showed an advance of one half of 1 percent, maintaining the upward movement which was begun in March of the present year. This index which includes 784 commodities of price series weighted according to their relative importance in the markets and based on the average prices for the year 1926 as 100 rose from 70.8 for September to 71.2 for October.

The index for October averaged the same as for September 1931 when the index number was also 71.2. As compared with October 1932 when the index number stood at 64.4, the present level shows an increase of more than 10 percent over that of a year ago. The index for October is over 19 percent higher than that for February when prices had reached their low point with an index of 59.8.

The all commodities index, which indicates the trend in the general level of wholesale prices, shows that prices for October were 25 percent below the level of June 1929 when the index stood at 95.2. Prices for the current month averaged higher than in the corresponding month of the year before for the fifth consecutive time in the past 3 years.

Between September and October increases in prices were reported in 199 instances, decreases in 185 instances, while in 400 instances no changes were shown.

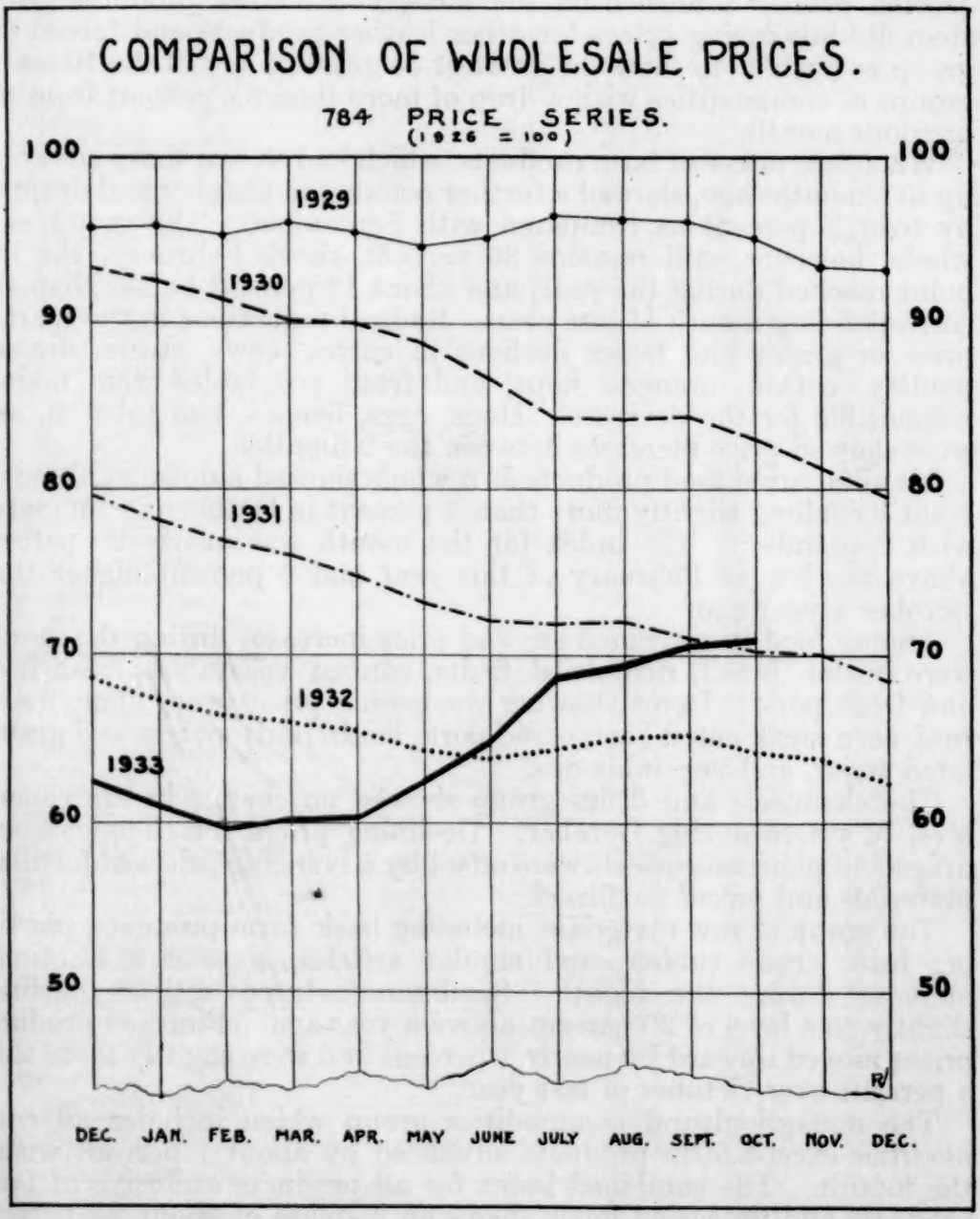
The group of fuel and lighting materials again showed the largest price advance with the group as a whole rising by more than 4½ percent over the previous month. Increased prices took place in the averages for bituminous coal, coke, and petroleum products. The wholesale prices of anthracite, however, showed a slight decrease.

The house-furnishing-goods group registered the second largest advance in average prices. This group increased by nearly 2½ percent from September to October. Both furniture and furnishings shared in the upward movement.

Continued strengthening of prices of brick and tile, cement, lumber, structural steel, and other building materials caused the group of all building materials to advance nearly 1½ percent over the month

before. Prepared paint and paint materials registered slightly declining prices.

Metals and metal products as a whole continued on the up grade during October due to further advancing average prices of agricultural implements, iron and steel products, and motor vehicles. On the



other hand nonferrous metals showed a general weakening of prices, while plumbing and heating fixtures remained at the September levels. The index for the group as a whole rose by more than 1 percent.

The sharp up turn in market prices of textile products, which has been in evidence since the low point was reached in February, was considerably slowed down. The group as a whole showed only a fractional increase during October. The subgroups of clothing and woolen and worsted goods advanced, while cotton goods, knit goods, silk and rayon, and other textile products declined.

The miscellaneous group of commodities showed a very slight recovery. Advancing prices for crude rubber, paper and pulp, and other miscellaneous items outweighed declining prices for cattle feed, with automobile tires and tubes showing no change in average prices between the 2 months.

Declining prices of hides and skins, leather, and boots and shoes exerted greater influence on the hides and leather products group than did advancing prices for other leather products and forced the group as a whole to show the greatest decrease of any of the 10 major groups of commodities with a drop of more than 3½ percent from the previous month.

Wholesale prices of farm products, which had shown sharp advances up to 2 months ago, showed a further reaction in October and dropped by over 2 percent as compared with September. The group as a whole, however, still remains 36 percent above February, the low point reached during the year, and about 19 percent higher than the corresponding month of last year. Radical reductions in the market price of grains and lesser declines in calves, cows, steers, dressed poultry, cotton, oranges, hops, and fresh vegetables were mainly responsible for the decrease. Hogs, eggs, lemons, leaf tobacco, and wool showed price increases between the 2 months.

Manufactured food products as a whole showed a downward movement by falling slightly more than 1 percent in October as compared with September. The index for the month was nearly 20 percent above the low of February of this year and 6 percent higher than October a year ago.

Among food items which showed price increases during the month were butter, bread, rice, dried fruits, canned vegetables, fresh beef, and fresh pork. Items showing weakening prices were flour, macaroni, corn meal, cured beef, cured pork, lamb, mutton, raw and granulated sugar, and vegetable oils.

The chemicals and drugs group showed no change in the general level of prices during October. Declining prices for chemicals and drugs and pharmaceuticals were offset by advancing prices of fertilizer materials and mixed fertilizers.

The group of raw materials, including basic farm products, pig tin, pig lead, crude rubber, and similar articles, showed a fractional increase during the month. Semimanufactured articles declined slightly to a level of 20 percent above a year ago. Finished products prices moved upward by nearly 1 percent and were slightly more than 8 percent over October of last year.

The nonagricultural commodities group which includes all commodities except farm products advanced by about 1 percent within the month. The combined index for all products exclusive of farm products and processed foods shows an increase of about 2½ percent between September and October and a rise of more than 10 percent over October a year ago.

Raw materials were 27½ percent higher in October than in February when the low point was reached. Semimanufactured articles were over 29 percent higher in October than in February. In the same period finished products advanced by 14 percent, nonagricultural commodities by 16 percent, and all commodities, eliminating farm products and foods, by 17 percent.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

Groups and subgroups	October 1932	September 1933	October 1933	Purchasing power of the dollar October 1933
All commodities	64.4	70.8	71.2	$1.404
Farm products	46.9	57.0	55.7	1.795
Grains	34.4	63.9	58.2	1.718
Livestock and poultry	45.0	46.7	45.4	2.203
Other farm products	52.1	61.2	61.2	1.634
Foods	60.5	64.9	64.2	1.558
Butter, cheese, and milk	60.5	65.8	66.0	1.515
Cereal products	64.1	84.7	85.0	1.176
Fruits and vegetables	52.2	66.8	62.5	1.600
Meats	56.4	51.5	51.0	1.961
Other foods	65.4	64.5	64.4	1.553
Hides and leather products	72.8	92.3	89.0	1.124
Boots and shoes	84.6	98.9	98.9	1.011
Hides and skins	49.6	84.1	71.2	1.404
Leather	64.1	85.4	83.2	1.202
Other leather products	81.9	84.6	85.1	1.175
Textile products	55.0	76.9	77.1	1.297
Clothing	62.5	81.1	84.8	1.179
Cotton goods	56.2	91.3	88.8	1.126
Knit goods	50.9	74.8	74.7	1.339
Silk and rayon	30.8	34.5	32.0	3.125
Woolen and worsted goods	56.5	82.7	84.5	1.183
Other textile products	67.7	76.5	75.3	1.328
Fuel and lighting materials	71.1	70.4	73.6	1.359
Anthracite coal	88.7	82.0	81.8	1.222
Bituminous coal	81.1	84.7	89.8	1.114
Coke	76.7	79.7	82.6	1.211
Electricity	104.6	90.4	(1)	----------
Gas	104.4	101.5	(1)	----------
Petroleum products	47.4	49.6	52.7	1.898
Metals and metal products	80.3	82.1	83.0	1.205
Agricultural implements	84.7	83.2	83.7	1.195
Iron and steel	80.4	80.3	82.4	1.214
Motor vehicles	92.7	90.4	90.9	1.100
Nonferrous metals	50.7	68.5	67.0	1.493
Plumbing and heating	67.5	74.7	74.7	1.339
Building materials	70.7	82.7	83.9	1.192
Brick and tile	75.3	82.6	84.6	1.182
Cement	79.0	90.8	91.2	1.096
Lumber	56.6	82.0	84.2	1.188
Paint and paint materials	68.3	77.3	76.1	1.314
Plumbing and heating	67.5	74.7	74.7	1.339
Structural steel	81.7	82.4	86.8	1.152
Other building materials	80.0	85.9	87.1	1.148
Chemicals and drugs	72.7	72.7	72.7	1.376
Chemicals	79.8	78.8	78.6	1.272
Drugs and pharmaceuticals	55.9	56.8	56.8	1.761
Fertilizer materials	63.4	66.6	67.6	1.479
Mixed fertilizers	66.5	67.8	68.3	1.464
House-furnishing goods	73.7	79.3	81.2	1.232
Furnishings	74.7	80.5	82.8	1.208
Furniture	72.8	78.4	79.8	1.253
Miscellaneous	64.1	65.1	65.3	1.531
Automobile tires and tubes	44.6	43.2	43.2	2.315
Cattle feed	42.7	64.2	60.4	1.656
Paper and pulp	73.4	82.2	82.4	1.214
Rubber, crude	7.3	14.9	15.5	6.410
Other miscellaneous	82.1	78.1	78.6	1.272
Raw materials	54.6	61.7	61.8	1.618
Semimanufactured articles	60.7	72.9	72.8	1.374
Finished products	69.6	74.8	75.4	1.326
Nonagricultural commodities	68.1	73.7	74.4	1.344
All commodities other than farm products and foods	70.2	76.1	77.2	1.295

[1] Data not yet available.

Wholesale Prices in the United States and in Foreign Countries

IN THE following table the index numbers of wholesale prices of the Bureau of Labor Statistics of the United States Department of Labor, and those in certain foreign countries, have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the original sources from which the information has been drawn, in certain cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, and the kind and number of articles included, there are important differences in the composition of the index numbers themselves. Indexes are shown for the years 1926–32, inclusive, and by months since July 1931.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES

Country	United States	Australia	Austria	Belgium	Bulgaria	Canada	Chile	China
Computing agency	Bureau of Labor Statistics	Bureau of Census and Statistics	Federal Statistical Bureau	Ministry of Industry and Labor	General Statistical Bureau	Dominion Bureau of Statistics	General Statistical Bureau	National Tariff Commission, Shanghai
Base period	1926 (100)	1911 (1,000)	January–June 1914 (100)	April 1914 (100)	1926 (100)	1926 (100)	1913 (100)	1926 (100)
Commodities	784	92	(Gold) 47	(Paper) 125	(Gold) 55	502	(Paper)	(Silver) 155 [1]
1926	100.0	1,832	123	744	100.0	100.0		100.0
1927	95.4	1,817	133	847	102.4	97.7		104.4
1928	96.7	1,792	130	843	109.8	96.4	192.5	101.7
1929	95.3	1,803	130	851	117.0	95.6	192.4	104.5
1930	86.4	1,596	117	744	94.6	86.6	166.9	114.8
1931	73.0	1,428	108	626	79.1	72.1	152.2	126.7
1932	64.8	1,411	112	532	70.3	66.7	230.4	112.4
1932								
January	67.3	1,414	114	557	75.7	69.4	146.5	119.3
February	66.3	1,449	112	554	75.9	69.2	151.9	
March	66.0	1,438	113	548	75.9	69.1	164.2	
April	65.5	1,431	112	539	72.4	68.2	189.8	116.7
May	64.4	1,408	116	526	71.7	67.4	213.0	115.7
June	63.9	1,390	115	514	71.7	66.4	226.6	113.6
July	64.5	1,397	112	512	69.2	66.4	230.2	111.8
August	65.2	1,415	112	524	67.9	66.7	239.6	111.3
September	65.3	1,441	110	533	66.9	65.9	281.6	109.8
October	64.4	1,404	111	529	64.5	65.0	293.9	108.7
November	63.9	1,382	111	525	63.3	64.7	289.0	106.9
December	62.6	1,367	108	522	62.5	64.0	337.8	107.5
1933								
January	61.0	1,344	108	521	63.5	63.9	346.0	108.6
February	59.8	1,330	106	512	62.4	63.6	344.7	107.6
March	60.2	1,333	107	504	61.0	64.4	343.4	106.7
April	60.4	1,358	107	501	61.5	65.4	351.2	104.5
May	62.7	1,406	108	502	62.1	66.9	357.3	104.2
June	65.0	1,439	109	507	61.3	67.6	357.8	104.5
July	68.9	1,455	111	506	62.6	70.5	353.2	103.4
August	69.5	1,452	108	501		69.4		101.7
September	70.8		108	496		68.9		100.4

[1] Quotations, 154 since January 1932.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Czechoslovakia	Denmark	Finland	France	Germany	India	Italy	Japan
Computing agency	Central Bureau of Statistics	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Department, etc.,[3] Calcutta	Riccardo Bachi	Bank of Japan, Tokyo
Base period	July 1914 (100)	1913 (100)	1926 (100)	1913 (100)	1913 (100)	July 1914 (100)	1913 (100)	October 1900 (100)
Commodities	(Gold) 69	118	120	(Paper) 126	400	(Paper) 72	(Paper) 144	56
1926	[2] 944	163	100	695	134.4	148	602.0	236.7
1927	[2] 968	153	101	642	137.6	148	495.3	224.6
1928	[2] 969	153	102	645	140.0	145	461.6	226.1
1929	[2] 913	150	98	627	137.2	141	445.3	219.8
1930	118.6	130	90	554	124.6	116	383.0	181.0
1931	107.5	114	84	502	110.9	96	328.4	153.0
1932	99.5	117	90	427	96.5	91	303.7	161.1
1932								
January	102.3	118	94	439	100.0	97	316.6	159.5
February	101.4	119	93	446	99.8	97	314.4	161.4
March	101.4	117	92	444	99.8	94	315.0	158.5
April	100.7	115	89	439	98.4	92	311.3	154.1
May	99.5	114	88	438	97.2	89	305.1	150.3
June	97.3	113	87	425	96.2	86	297.4	146.4
July	98.0	115	89	430	95.9	87	295.7	147.7
August	97.9	117	89	415	95.4	91	295.9	155.8
September	100.1	119	90	413	95.1	91	299.6	167.4
October	99.5	118	90	412	94.3	91	298.6	169.1
November	99.1	120	91	413	93.9	90	298.2	177.9
December	99.0	119	90	413	92.4	88	295.8	184.6
1933								
January	96.6	117	90	411	91.0	88	292.0	185.0
February	96.3	124	89	404	91.2	86	286.3	179.6
March	95.5	123	89	390	91.1	82	281.3	177.4
April	94.6	122	88	387	90.7	84	279.1	176.2
May	96.3	123	88	383	91.9	87	278.8	176.8
June	98.3	123	89	403	92.9	89	281.2	179.6
July	98.3	125	90	401	93.9	91	278.9	182.1
August	97.4	126	90	397	94.2	89	278.3	180.0
September	96.5	128	90	395	94.9	88	275.8	182.4

[2] Paper revised.

[3] Department of Commercial Intelligence and Statistics.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN FOREIGN COUNTRIES—Continued

Country	Jugoslavia	Netherlands	New Zealand revised	Norway	Poland	South Africa	Spain	Sweden	Switzerland	United Kingdom
Computing agency	National Bank	Central Bureau of Statistics	Census and Statistics Office	Central Bureau of Statistics	Central Office of Statistics	Office of Census and Statistics	Bureau of Labor Statistics	Board of Trade	Federal Labor Department	Board of Trade
Base period	1926 (100)	1913 (100)	1909–13 (1,000)	1913 (100)	1927 (100)	1910 (1,000)	1913 (100)	1913 (100)	July 1914 (100)	1924 (100)
Commodities	55	48	180	95	73	188	74	160	78	150
1926	100.0	145	1553	.....	88.7	1387	181	149	144.5	89.1
1927	103.4	148	1478	.....	100.0	1395	172	146	142.6	85.2
1928	106.2	149	1492	157	101.0	1354	167	148	144.6	84.4
1929	100.6	142	1488	149	95.7	1305	171	140	141.2	82.1
1930	86.8	117	1449	137	82.3	1155	172	122	126.5	71.9
1931	72.9	97	1346	122	70.5	1119	174	111	109.7	62.6
1932	65.2	79	1297	122	61.7	1031	173	109	96.0	61.1
1932										
January	67.8	84	1344	123	63.9	1083	176	109	101.4	63.7
February	67.3	83	1330	123	64.6	.....	178	110	99.6	63.4
March	67.8	82	1325	122	63.8	.....	180	109	98.7	63.0
April	66.1	80	1316	120	65.3	1062	181	109	97.7	61.6
May	65.4	79	1313	120	66.1	.....	177	109	95.6	60.6
June	64.9	78	1308	120	61.8	.....	174	108	94.5	59.0
July	65.6	76	1308	122	60.4	1002	172	108	93.6	58.8
August	62.6	75	1308	123	60.2	.....	171	108	95.0	59.9
September	61.8	76	1311	123	60.2	.....	170	110	94.8	61.4
October	63.9	77	1304	123	58.8	978	169	110	94.8	60.8
November	64.7	77	1286	124	58.4	.....	170	109	92.4	60.8
December	64.8	76	1273	123	56.1	.....	169	108	91.8	60.8
1933										
January	67.6	75	1266	122	56.3	982	169	106	91.3	60.3
February	68.4	74	1315	121	57.9	.....	168	106	90.1	59.5
March	67.0	72	1316	121	57.9	.....	166	105	90.0	58.7
April	66.3	71	1315	121	57.6	1013	164	105	91.1	58.5
May	64.9	72	1323	121	56.8	.....	.....	106	91.6	59.7
June	66.1	73	1321	121	58.2	.....	.....	106	91.2	61.2
July	63.7	73	1327	121	58.2	1072	.....	108	91.7	61.5
August	60.7	73	1325	122	53.9	.....	.....	108	90.9	61.7
September	60.7	75	.....	123	54.9	.....	.....	109	91.0	62.0

PUBLICATIONS RELATING TO LABOR

Official—United States

CONNECTICUT.—Agricultural Experiment Station. *Circular 91: Unemployment gardens. New Haven, 1933. 10 pp.*

This bulletin, prepared at the request of the Connecticut Unemployment Commission, contains information regarding the best utilization of garden plots by families suffering from the depression.

—— Department of Public Welfare. *Report for the two years ended June 30, 1932. Hartford, 1933. 209 pp. (Public Document No. 28.)*

Contains data on public provision for the poor, private provision for the aged, child care, etc. Gives reports for individual homes for the aged.

MASSACHUSETTS.—Department of Banking and Insurance. Office of the Commissioner of Banks. *Credit unions: Statutes of the Commonwealth of Massachusetts, General Laws, Chapters 167; 171; 266, sections 52–55, and amendments to December 31, 1931. [Boston, 1932?] 32 pp.*

MILWAUKEE, (WISCONSIN).—[Board of School Directors.] Street Trades Department. *Annual report, July 1, 1932–July 1, 1933. Milwaukee, 1933. 40 pp., charts. (Mimeographed.)*

—— Mayor's Housing Commission. *Report. Milwaukee, 1933. 28 pp., maps, charts, plans.*

NEW YORK.—Department of Labor. Division of Statistics and Information. *Public work in the State of New York—laws and regulations as of July 1, 1933. Albany, 1933. 14 pp.*

—— —— Employment Service. Division of Junior Placement. *Job information in the laundry industry. New York, 1933. [Various paging.] Illus. (Mimeographed.)*

Prepared for the guidance of employment workers dealing with placements in occupations in the industry covered.

—— Department of Social Welfare. *Volume, distribution and cost of child dependency in New York State for the year ending December 31, 1931, by James H. Foster and Robert Axel. Albany, 1933. 109 pp., maps, charts.*

The foreword points out that this is the first attempt to study the various aspects of child dependency on a State-wide basis, with particular reference to the situation in the individual counties. At the close of 1931 there were in New York 108,592 dependent children in institutions, foster homes, and families aided by boards of child welfare, of whom 91.6 percent were public charges or under public supervision, while only 8.4 percent were maintained through private philanthropy. The net disbursement for the care of dependent children in 1931 amounted to $34,934,039, of which 80.9 percent was paid from public funds and 19.1 percent from private philanthropy. "For the entire State, the total cost of child care amounted to an expenditure of $2.77 per capita of population—$2.24 from public funds and $0.53 from private philanthropic sources."

NORTH CAROLINA.—Department of Labor. *Rules and regulations of the department of labor relative to the employment of children under 16 years of age; Standards of the department of labor for grading industrial plants, effective June 1, 1933. Raleigh [1933]. 10 pp.*

OKLAHOMA.—Department of Labor. *Bulletin No. 12-C: Women in industry. Oklahoma City, 1933. 51 pp.*

Contains the laws of Oklahoma relating to women in industry.

PENNSYLVANIA.—Department of Labor and Industry. *Regulations affecting employment of minors. Harrisburg, 1933. 23 pp.*

—— —— *Special Bulletin No. 36: Women workers after a plant shutdown. Prepared by Bureau of Women and Children. [Harrisburg], 1933. 18 pp.*

Reviewed in this issue.

SAN FRANCISCO (CALIFORNIA).—Committee for the Survey of Unemployment Relief Administration. *Report. San Francisco, 1933. 122 pp., charts.*

The activities and expenditures of the various relief agencies in the city are reported, and an account is given of special studies of families receiving relief.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 373: Coal-mine accidents in the United States, 1931, by W. W. Adams, L. E. Geyer, and L. Chenoweth. Washington, 1933. 104 pp.*

Reviewed in this issue.

—— —— —— *Bulletin 374: Metal-mine accidents in the United States during the calendar year 1931, by William W. Adams. Washington, 1933. 36 pp.*

Reviewed in this issue.

—— —— —— *Mineral resources of the United States, 1930. Part II—Nonmetals. Washington, 1932. 876 pp., charts.*

The section on coal includes statistics of number of mine workers, days worked by the mines, length of the working day, output per man, and strikes, suspensions, and lockouts, in 1930 and earlier years.

—— —— —— *Minerals yearbook, 1932–33. Washington, 1933. 819 pp., charts.*

Includes a short section on safety in mining in 1932.

—— —— Bureau of the Census. *Manual of joint causes of death. Washington, 1933. 255 pp. (Third edition.)*

This volume is for use in the compilation of mortality statistics where two or more causes of death are given either as primary or secondary causes or in other relations, in order to insure comparability when the statistics are compiled in the usually accepted manner on the basis of the single cause of death.

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 582: Occupation hazards and diagnostic signs; a guide to impairments to be looked for in hazardous occupations. Washington, 1933. 52 pp. (Revision of Bulletin No. 306.)*

—— —— —— *Bulletin No. 586: Wages and hours of labor in the lumber industry in the United States, 1932. Washington, 1933. 67 pp.*

—— —— —— *Bulletin No. 587: Wages and hours of labor in rayon and other synthetic yarn manufacturing, 1932. Washington, 1933. 32 pp.*

—— —— —— *Bulletin No. 589: Wages and hours of labor in the leather industry, 1932. Washington, 1933. 102 pp.*

—— —— —— *Bulletin No. 590: Labor legislation, 1931 and 1932. Washington, 1933. 186 pp.*

—— —— Children's Bureau. *Proceedings of child health recovery conference, held on the call of the Secretary of Labor, in Washington, D.C., October 6, 1933. Washington, 1933. 57 pp. (Mimeographed.)*

Some account of this conference was given in the Monthly Labor Review for November 1933 (p. 1090).

—— —— —— *Publication No. 218: Employed boys and girls in Rochester and Utica, N.Y., by Alice Channing. Washington, 1933. 74 pp.*

—— —— Women's Bureau. *Bulletin No. 110: The change from manual to dial operation in the telephone industry, by Ethel L. Best. Washington, 1933. 15 pp.*

Reviewed in this issue.

UNITED STATES.—Department of the Interior. Bureau of Indian Affairs. *Indians at work. Washington [1933]. 34 pp., illus. (Mimeographed.)*

Report on activities under the Indian emergency conservation work program.

—— —— Office of Education. *Bulletin, 1932, No. 17, National Survey of Secondary Education: Monograph No. 14—Programs of guidance, by William C. Reavis. Washington, 1933. 144 pp., diagrams.*

In the judgment of the author, the necessity for guidance services in the secondary schools arises from the nature of the demand for modern secondary education; the shifts in the social and economic order to which the secondary-school student must make adjustments; the adolescent's need for counsel and guidance; and the need of eliminating waste in educational processes.

—— —— —— —— *Monograph No. 21—Instruction in the social studies, by William G. Kimmel. Washington, 1933. 105 pp.*

Outlines and analyzes social studies in both junior and senior high schools and gives suggestions for improving the teaching of social studies.

—— Federal Board for Vocational Education. *Bulletin No. 169, Agricultural Series No. 44: Analysis of special jobs in farm forestry—Timber farming for profit, including woods management and free planting of marginal, submarginal, and idle lands. Washington, 1933. 42 pp.*

This pamphlet was prepared for the use of teachers of vocational agriculture in instructing persons on jobs having to do with production of timber crops.

—— Interstate Commerce Commission. Bureau of Statistics. *Accident Bulletin No. 101: Summary and analysis of accidents on steam railways in the United States subject to the Interstate Commerce Act, calendar year 1932. Washington, 1933. 88 pp., charts.*

Data from this summary are published in this issue of the Monthly Labor Review.

Official—Foreign Countries

BELGIUM.—Ministère de l'Intérieur. Office Central de Statistique. *Annuaire statistique de la Belgique et du Congo Belge, 1933. Brussels, 1933. [Various paging.]*

This statistical yearbook includes data on cooperation, various types of social-insurance funds, workers' dwellings, strikes and lockouts, and industrial accidents, together with data on the number of employees in different industries. While some of the statistics in the volume are for 1932, most of them are for earlier years.

CANADA.—Bureau of Statistics. *The Canada year book, 1933. Ottawa, 1933. 1146 pp., maps.*

Gives statistics on wages, employment and unemployment, production, prices, cost of living, trade-union membership, fatal industrial accidents, workmen's compensation, strikes and lockouts, old-age pensions, the cooperative movement, immigration, etc. Information on 1932 labor legislation from this publication is given in this issue of the Monthly Labor Review.

—— —— *Seventh Census of Canada, 1931. Bulletin No. XXXI: Gainfully employed 10 years of age and over for Canada and the Provinces, 1931. Ottawa, 1933. 23 pp.*

Of the 3,924,533 persons 10 years of age and over gainfully employed in 1931 in Canada, 3,258,614 were males and 665,919 were females.

CEYLON.—[Registrar General and Director of Commercial Intelligence?] *Annual general report for 1932 on the economic, social, and general conditions of the island. Colombo, Ceylon Government Press, 1933. 101 pp., map, charts. (Compiled from the reports of the government departments.)*

Includes some data on housing, labor, wages, and cooperative societies.

COSTA RICA.—Direccion General de Estadistica. *Censo de personas sin trabajo año 1932 (articulo transitorio del decreto legislativo No. 54 de 16 de julio de 1932). San Jose, 1933. 35 pp.*

Census of unemployed workers in Costa Rica.

FEDERATED MALAY STATES.—Labor Department. *Annual report for the year 1932. Kuala Lumpur, 1933. 63 pp.*

Some data on wages of laborers on rubber and copra estates are given in the report.

FRANCE.—Bureau de la Statistique Générale. *Annuaire statistique, 1932. Paris, 1933. [Various paging.]*

Contains statistics of welfare institutions, cooperative and mutual agricultural credit organizations, wages and hours of labor, unemployment, savings and insurance funds, and accidents.

GREAT BRITAIN.—Home Office. *Welfare Pamphlet No. 5: Ventilation of factories and workshops. London, 1933. 51 pp., diagrams, illus. (Second edition.)*

An illustrated description of various types of factory ventilation systems.

INTERNATIONAL LABOR OFFICE.—*International survey of legal decisions on labor law, 1931. Geneva, 1933. 372 pp. (World Peace Foundation, American agent, Boston, Mass.)*

The countries covered are England, France, Germany, Italy, and the United States.

IRISH FREE STATE.—Department of Industry and Commerce. *Report for 1932 [of proceedings in connection with the administration of the factory and workshop acts]. Dublin, [1933]. 15 pp.*

JAPAN.—Cabinet Impérial. Bureau de la Statistique Générale. *Résumé statistique de l'Empire du Japon. Tokyo, 1933. 159 pp., charts. (In Japanese and French.)*

Section IX of this report deals with labor and includes among other material a census of labor, and data on operations of employment offices, strikes and lockouts, unemployment statistics, and wages, the latest figures on the last-mentioned subject being for 1931.

LEAGUE OF NATIONS.—Economic Intelligence Service. *World economic survey, 1932–33. Geneva, 1933. 345 pp. (World Peace Foundation, American agent, Boston, Mass.)*

The confusion of prices, and wages and social policy are the subjects of two chapters.

NETHERLANDS.—Departement van Socialezaken. *Verslag over het haventoezicht, uitgeoefend in 1932. The Hague, 1933. 58 pp.*

Annual report on harbor inspection in the Netherlands in 1932, including information on accidents, industrial disputes, unemployment, and other labor conditions.

NORWAY.—Statistiske Centralbyrå. *Norges bergverksdrift, 1932. (Opgaver over bergverksdriften på svalbard for året 1931.) Oslo, 1933. 40 pp.*

Annual report on mining activities in Norway in 1932, with data as to number of workers engaged in mining and amounts paid in wages.

—— —— *Statistisk årbok for Kongeriket Norge, 1933. Oslo, 1933. 258 pp.*

Among the subjects covered in this statistical yearbook are unemployment, work of employment offices, industrial disputes, collective agreements, trade-union membership, wages, social insurance, cooperative societies, production, and prices and cost of living. The data on some of these subjects come down to 1933. The section giving international comparisons includes figures on prices and cost of living, industrial disputes, unemployment, and trade-union membership in various countries.

OSLO (NORWAY).—Arbeidskontor. *Årsberetning, 1932. Oslo, 1933. 27 pp.*

Annual report of the Oslo Employment Office for the year 1932, including data on applications for jobs and workers, and on jobs filled, by industries and principal occupations.

POLAND.—Chief Bureau of Statistics. *Concise statistical year-book of Poland, 1933. Warsaw, 1933. 170 pp., map.* [*In English.*]

Contains statistical information for Poland up to 1933, the subjects covered including employment; salaried employees; workers employed on public works; unemployment; employment service; social insurance, including unemployment insurance; wages and salaries; and cost of living.

QUEENSLAND (AUSTRALIA).—Registrar-General's Office. *A B C of Queensland and Australian statistics. Brisbane, 1933. 336 pp., map.*

Practically the official yearbook of Queensland, presented under the authority of the State government, and giving a statistical survey of the condition and activities of the State. Some of the labor subjects are industrial accidents, labor organizations, work of industrial courts, labor disputes, retail price indexes, rents, unemployment and unemployment relief and insurance, basic wages, and "weighted average nominal weekly rates payable to adult males for a full week's work."

STRAITS SETTLEMENTS.—Labor Department. *Annual report, for the year 1932. Singapore, 1933. 31 pp.*

The report gives some data on wages of estate laborers.

SWITZERLAND.—Caisse Nationale Suisse d'Assurance en cas d'Accidents. *Rapport annuel et comptes pour l'exercice, 1932.* [*Berne?*], *1933. 46 pp.*

Report on the operation of the Swiss National Workmen's Compensation Fund for the year 1932. The number of enterprises subject to compulsory insurance at the end of 1932 was 42,994, an increase of 586 over the number included in the previous year.

TOKYO (JAPAN).—Municipal Office. Bureau of Statistics. *Statistical abstract for Tokyo, 1931. Vol. IV. Tokyo, 1933. 163 pp., charts.*

Labor statistics, including daily wages, industrial disputes, etc., are given in part VIII of this publication.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Official yearbook of the Union and of Basutoland, Bechuanaland Protectorate and Swaziland, No. 14, 1931–1932. Pretoria, 1933. 1080 pp., maps, charts.*

Includes chapters on labor and industrial conditions, prices, social conditions (including data on old-age pensions, etc.), and mines (employment, average pay, accidents).

Unofficial

AMERICAN FEDERATION OF LABOR. Executive Council. *Report to the fifty-third annual convention, Washington, D.C., October 2, 1933. 128 pp., charts.*

Data on benefit payments by standard national and international unions during 1932, taken from this report, are given in this issue of the Monthly Labor Review. A report on the recent convention of the federation including a review of the report of the executive council, was published in the Monthly Labor Review for November (pp. 1120–1131).

BÄUMER, GERTRUD. *Familienpolitik, Probleme, Ziele und Wege. Berlin, Verlag für Standesamtswesen Gmb H., 1933. 77 pp.*

Deals with the family as a social problem, including the influence of the depression upon the family, family welfare work, family responsibility, education, protection of youth, etc.

BINGHAM, WALTER VAN DYKE, and MOORE, BRUCE VICTOR. *How to interview New York, Harper & Bros., 1931. 320 pp. (Second printing.)*

The writers discuss the various problems connected with conducting satisfactory personal interviews with a view to providing a dependable technique for various types of interviews. There is a classified and annotated bibliography.

BLODGETT, HARVEY A. *Making the most of your income. New York, Macmillan Co., 1933. 180 pp.*

CIVIC COMMITTEE FOR ADULT LITERACY (NEW YORK). *An experiment in adul education: Training for the unemployed in the New York City continuation schools. New York, Public Library, 96th Street Branch, 1932. 19 pp., chart, illus.*

Includes an account of the summer session of 1932 in the Brooklyn boys' continuation school, giving data as to causes and period of unemployment of student body, etc.

CONFEDERAZIONE NAZIONALE SINDACATI FASCISTI DELL'INDUSTRIA. *La carta del lavoro. Rome, [1933?]. 128 pp. (In Italian, French, English, German, and Spanish.)*

The Fascist labor charter or code in effect in Italy.

GEE, WILSON, and TERRY, EDWARD ALLISON. *The cotton cooperatives in the Southeast. New York, D. Appleton-Century Co., 1933. 268 pp., maps, charts. (Publication of University of Virginia Institute for Research in the Social Sciences.)*

Reviews the general situation of the cotton farmer; analyzes the cooperative cotton-marketing associations set up in the Southeastern States, from the point of view of finance, marketing agreements, field service, membership and deliveries, marketing policies and procedures, etc.; and discusses the situation under Federal aid.

HALL, ELIZABETH L. *Mothers' assistance in Philadelphia—actual and potential costs: A study of 1,010 families. Hanover, N.H., Sociological Press, 1933. 117 pp. (Studies in Social Economy, Carola Woerishoffer Graduate Department of Social Economy and Social Research, Bryn Mawr College.)*

A study of 1,010 familes who, through the death of their heads (married men residing in Philadelphia), either were or might become charges upon the Mothers' Assistance Fund of that city. The purpose of the study was to arrive at some method of estimating, with a reasonable approach to accuracy, the maximum amount of money needed to carry the fund for a given period in a large city like Philadelphia. It was made in normal times, the deaths of the men whose families were studied having occurred between December 1, 1923, and May 31, 1924, inclusive, and the figure indicated may therefore, it is pointed out, be taken also as the minimum for times of depression.

HARMAJA, LEO. *Effects of the War on economic and social life in Finland. New Haven, Yale University Press, 1933. 125 pp. (Economic and Social History of the World War, Carnegie Endowment for International Peace, Division of Economics and History.)*

Summary data are given on housing conditions, wages, hours, industrial conflicts, cost of living, etc.

HUGHES, HUGH J. *Cooperation here and abroad: A brief survey of cooperative achievement. Minneapolis, Midland Cooperative Oil Association, 1933. 48 pp.*

A vividly written account giving a brief history of the Rochdale Pioneers and of their predecessor, Robert Owen, showing the development of certain types of agricultural cooperative organizations and of consumers' cooperative societies. Incorporates the results of the writer's life-long interest and long experience with cooperative organizations (as director of markets of the Minnesota Department of Agriculture).

INDIANAPOLIS COUNCIL OF SOCIAL AGENCIES. *The leisure of a people: Report of a recreation survey of Indianapolis. [Indianapolis?], 1929. 571 pp., maps, charts.*

The report deals with the various facilities provided in Indianapolis for the use of leisure time. A bibliography is appended.

INSTITUT FÜR KONJUNKTURFORSCHUNG. *Konjunkturstatistisches Handbuch, 1933. Berlin, 1933. 384 pp.*

Contains general economic statistics for Germany for 1933 and earlier years.

JARRETT, MARY C. *Chronic illness in New York City. New York, Columbia University Press, 1933. Vol. 1, 258 pp., charts; Vol. II, 287 pp., charts; appendixes. (Studies of the Research Bureau of the Welfare Council of New York City, No. 5.)*

This survey of the care of the chronic sick in New York City shows the extent of the problem presented by the large number of persons who are chronically disabled. The first volume deals with the different problems arising out of such a large amount of disability, and the second with the care of the chronic sick by different types of voluntary agencies.

JOHN CRERAR LIBRARY, CHICAGO. *NRA: The new deal for business and industry—a bibliography, May–August 1933, together with a list of official publications of other new governmental agencies. Compiled by Jerome K. Wilcox. Chicago, American Library Association, 1933. 78 pp.*

LEMERT, BEN F. *The cotton textile industry of the Southern Appalachian Piedmont. Chapel Hill, University of North Carolina Press, 1933. 188 pp., maps, charts.*

A study of the cotton-textile industry of this region and of the reasons for its growth. An exhaustive analysis of costs in comparison with those of the New England textile regions indicates a lower labor cost in the Piedmont, which, combined with its other natural advantages, seems to promise a continued development, if the industry continues to meet the market's demands.

MARTIN, LILLIEN J., and DEGRUCHY, CLARE. *Salvaging old age in industry. San Francisco, Calif., Old Age Center, 1933. 7 pp.*

MEHNERT, KLAUS. *Youth in Soviet Russia. (Translated by Michael Davidson.) New York, Harcourt, Brace & Co., 1933. 270 pp.*

Deals with organization and education of children, youth, and adults, including students in the higher institutions of learning, the youth on socialized large-scale farms, etc.

NEW SURVEY OF LONDON LIFE AND LABOR. *Volume V: London industries, II. London, P. S. King & Sons, Ltd., 1933. 435 pp.*

OVERSTREET, H. A. *We move in new directions. New York, W. W. Norton & Co., Inc., 1933. 284 pp.*

PATCH, BUEL W. *Land settlement for the unemployed. [Washington, D.C.], Editorial Research Reports, 1933. (Vol. II, No. 15, pp. 271–287.)*

Reviews various attempts, by legislative enactment or actual experiment, to forward subsistence-homestead plans. Written with special reference to the work of the Subsistence Homesteads Division under the N.R.A.

PHILADELPHIA HOUSING ASSOCIATION. *Housing in Philadelphia, 1932, by Bernard J. Newman. Philadelphia, 1600 Walnut Street, 1933. 38 pp., maps, diagrams, illus.*

PLATT, RUTHERFORD. *The book of opportunities—A dictionary of jobs: Personal sidelights on 3,500 American occupations. New York, G. P. Putnam's Sons, 1933. 479 pp. (Revised edition.)*

Includes descriptions of the latest jobs and professions and suggests that there are novel fields of work ahead.

REED COLLEGE. *Bulletin, Vol. 12, No. 1: Women's wages compared with living costs and general community standards, 1914–1932. Portland, Oreg., 1933. 15 pp., chart.*

SAVE THE CHILDREN FUND (LONDON). *Unemployment and the child. Being the report on an inquiry into the effects of unemployment on the children of the unemployed and on unemployed young workers in Great Britain. London, Longmans, Green & Co., 1933. 137 pp.*

SAVE THE CHILDREN INTERNATIONAL UNION. *Children, young people, and unemployment: A series of enquiries into the effects of unemployment on children and young people. Part II, Austria, Great Britain, Poland. Geneva, Switzerland, 15 Rue Lévrier, 1933. 99 pp.*

SOCIAL SCIENCE RESEARCH COUNCIL. *Bulletin No. 16: Research in farm labor—scope and method. Prepared under the direction of the Advisory Committee on Social and Economic Research in Agriculture. New York, 230 Park Avenue, 1933. 84 pp., charts.*

THURSTON, FLORA M. *A bibliography on family relationships. New York, National Council of Parent Education, 60 East Forty-second Street, 1932. 273 pp.*

Compiled for the use of professional leaders and students concerned with family problems.

WELFARE COUNCIL OF NEW YORK CITY. Research Bureau. *Study 7: A survey of work for boys in Brooklyn. New York, 1931. 319 pp., maps, charts.*

"This survey of work for boys in Brooklyn is an attempt to give the general lay of the land as regards the organized service to boys in the borough, to measure roughly the needs of neighborhoods for additional recreational and social service for children, and to learn something of what adolescent boys themselves think about their social-recreational affairs. Its aim was solely to provide Brooklyn social agencies with information which would be useful in planning their programs of service."

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July 1912, except that in the case of bulletins giving the results of periodic surveys of the Bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus (*) are out of print.

Collective agreements

*No. 191. Collective bargaining in the anthracite coal industry. [1916.]
*No. 198. Collective agreements in the men's clothing industry. [1916.]
No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
No. 402. Collective bargaining by actors. [1926.]
No. 468. Trade agreements, 1927.

Conciliation and arbitration (including strikes and lockouts)

*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
*No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
*No. 139. Michigan copper district strike. [1914.]
*No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
*No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
No. 255. Joint industrial councils in Great Britain. [1919.]
No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
*No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
No. 481. Joint industrial control in the book and job printing industry. [1928.]

Cooperation

No. 313. Consumers' cooperative societies in the United States in 1920.
*No. 314. Cooperative credit societies (credit unions) in America and in foreign countries. [1922.]
No. 437. Cooperative movement in the United States in 1925 (other than agricultural).
No. 531. Consumers', credit, and productive cooperative societies, 1929.

Employment and unemployment

*No. 109. Statistics of unemployment and the work of employment offices [in the United States]. [1913.]
*No. 172. Unemployment in New York City, N.Y. [1915.]
*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
*No. 195. Unemployment in the United States. [1916.]
*No. 196. Proceedings of Employment Managers' Conference, held at Minneapolis, Minn., January 19 and 20, 1916.
*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
*No. 206. The British system of labor exchanges. [1916.]
*No. 227. Proceedings of Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
*No. 235. Employment system of the Lake Carriers' Association. [1918.]
*No. 241. Public employment offices in the United States. [1918.]
*No. 247. Proceedings of Employment Managers' Conference, Rochester, N.Y., May 9–11, 1918.
*No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.
No. 542. Report of the Advisory Committee on Employment Statistics. [1931.]
No. 544. Unemployment-benefit plans in the United States and unemployment insurance in foreign countries. [1931.]
*No. 553. Fluctuation in employment in Ohio, 1914 to 1929.
No. 555. Social and economic character of unemployment in Philadelphia, April 1930.

Housing

*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
No. 263. Housing by employers in the United States. [1920.]
No. 295. Building operations in representative cities in 1920.
No. 545. Building permits in the principal cities of the United States in [1921 to] 1930.

Industrial accidents and hygiene (including occupational diseases and poisons)

*No. 104. Lead poisoning in potteries, tile works, and porcelain-enameled sanitary ware factories. [1912.]
No. 120. Hygiene of the painters' trade. [1913.]
*No. 127. Dangers to workers from dusts and fumes, and methods of protection. [1913.]
*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
*No. 157. Industrial accident statistics. [1915.]
*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
*No. 179. Industrial poisons used in the rubber industry. [1915.]
No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
*No. 201. Report of the committee on statistics and compensation insurance costs of the International Association of Industrial Accident Boards and Commissions. [1916.]

Industrial accidents and hygiene (including occupational diseases and poisons)—Continued.

No. 209. Hygiene of the printing trade. [1917.]
*No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
No. 221. Hours, fatigue, and health in British munition factories. [1917.]
No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
*No. 234. The safety movement in the iron and steel industry, 1907 to 1917.
No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
*No. 249. Industrial health and efficiency. Final report of British Health of Munitions Workers' Committee. [1919.]
*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
No. 256. Accidents and accident prevention in machine building. [1919.]
No. 267. Anthrax as an occupational disease. [1920.]
No. 276. Standardization of industrial accident statistics. [1920.]
*No. 289. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
*No. 291. Carbon monoxide poisoning. [1921.]
No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
No. 298. Causes and prevention of accidents in the iron and steel industry, 1910–1919.
No. 392. Survey of hygienic conditions in the printing trades. [1925.]
No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
No. 427. Health survey of the printing trades, 1922 to 1925.
No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D.C., July 14–16, 1926.
No. 460. A new test for industrial lead poisoning. [1928.]
No. 466. Settlement for accidents to American seamen. [1928.]
No. 488. Deaths from lead poisoning, 1925–1927.
No. 490. Statistics of industrial accidents in the United States to the end of 1927.
No. 507. Causes of death, by occupation. [1930.]
No. 582. Occupation hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. (Revision of Bul. No. 306.) [1933.]

Industrial relations and labor conditions

No. 237. Industrial unrest in Great Britain. [1917.]
*No. 340. Chinese migrations with special reference to labor conditions. [1923.]
*No. 349. Industrial relations in the West Coast lumber industry. [1923.]
*No. 361. Labor relations in the Fairmont (W. Va.) bituminous coal field. [1924.]
No. 380. Postwar labor conditions in Germany. [1925.]
No. 383. Works council movement in Germany. [1925.]
No. 384. Labor conditions in the shoe industry in Massachusetts, 1920–1924.
No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]
No. 483. Conditions in the shoe industry in Haverhill, Mass., 1928.
No. 534. Labor conditions in the Territory of Hawaii, 1929–1930.

Labor laws of the United States (including decisions of courts relating to labor)

*No. 211. Labor laws and their administration in the Pacific States. [1917.]
*No. 229. Wage-payment legislation in the United States. [1917.]
No. 285. Minimum wage laws of the United States: Construction and operation. [1921.]
No. 321. Labor laws that have been declared unconstitutional. [1922.]
No. 322. Kansas Court of Industrial Relations. [1923.]
No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
No. 408. Laws relating to payment of wages. [1926.]
No. 581. Laws relating to employment agencies in the United States, as of January 1, 1933.
No. 590. Labor legislation, 1931 and 1932.
No. 592. Decisions of courts and opinions affecting labor, 1931 and 1932.
No. 596. Laws relating to prison labor in the United States, as of July 1, 1933.

Labor laws of foreign countries

*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]
No. 494. Labor legislation of Uruguay. [1929.]
No. 510. Labor legislation of Argentina. [1930.]
No. 529. Workmen's compensation legislation of the Latin American countries. [1930.]
No. 549. Labor legislation of Venezuela. [1931.]
No. 554. Labor legislation of Paraguay. [1931.]
No. 559. Labor legislation of Ecuador. [1931.]
No. 569. Labor legislation of Mexico. [1932.]

Labor organizations

No. 282. Mutual relief associations among Government employees in Washington, D.C. [1921.]
No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
No. 461. Labor organizations in Chile. [1928.]
*No. 465. Beneficial activities of American trade unions. [1928.]
No. 506. Handbook of American trade unions: 1929 edition.

Minimum wage

*No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.]
No. 467. Minimum-wage legislation in various countries. [1928.]

Old-age care, pensions and insurance

No. 386. Cost of American almshouses. [1925.]
*No. 465. Beneficial activities of American trade unions. [1928.]
No. 477. Public-service retirement systems, United States and Europe. [1929.]
*No. 489. Care of aged persons in United States. [1929.]
No. 505. Directory of homes for the aged in the United States. [1929.]
No. 561. Public old-age pensions and insurance in the United States and in foreign countries. [1932.]

Prison labor

No. 372. Convict labor in 1923.
No. 595. Prison labor in the United States, 1932.

Proceedings of annual conventions of the Association of Governmental Officials in Industry of the United States and Canada. (Name changed in 1928 from Association of Governmental Labor Officials of the United States and Canada)

*No. 266. Seventh, Seattle, Wash., July 12–15, 1920.
No. 307. Eighth, New Orleans, La., May 2–6, 1921.
*No. 323. Ninth, Harrisburg, Pa., May 22–26, 1922.
*No. 352. Tenth, Richmond, Va., May 1–4, 1923.
*No. 389. Eleventh, Chicago, Ill., May 19–23, 1924.
*No. 411. Twelfth, Salt Lake City, Utah, August 13–15, 1925.
*No. 429. Thirteenth, Columbus, Ohio, June 7–10, 1926.
*No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.
*No. 480. Fifteenth, New Orleans, La., May 21–24, 1928.
No. 508. Sixteenth, Toronto, Canada, June 4–7, 1929.
No. 530. Seventeenth, Louisville, Ky., May 20–23, 1930.
*No. 563. Eighteenth, Boston, Mass., May 18–22, 1931.

Proceedings of annual meetings of the International Association of Industrial Accident Boards and Commissions

No. 210. Third, Columbus, Ohio, April 25–28, 1916.
No. 248. Fourth, Boston, Mass., August 21–25, 1917.
No. 264. Fifth, Madison, Wis., September 24–27, 1918.
*No. 273. Sixth, Toronto, Canada, September 23–26, 1919.
No. 281. Seventh, San Francisco, Calif., September 20–24, 1920.
No. 304. Eighth, Chicago, Ill., September 19–23, 1921.
No. 333. Ninth, Baltimore, Md., October 9–13, 1922
*No. 359. Tenth, St. Paul, Minn., September 24–26, 1923.
No. 385. Eleventh, Halifax, Nova Scotia, August 26–28, 1924.
No. 395. Index to proceedings, 1914–1924.
No. 406. Twelfth, Salt Lake City, Utah, August 17–20, 1925.
No. 432. Thirteenth, Hartford, Conn., September 14–17, 1926.
*No. 456. Fourteenth, Atlanta, Ga., September 27–29, 1927.
No. 485. Fifteenth, Paterson, N. J., September 11–14, 1928.
No. 511. Sixteenth, Buffalo, N. Y., October 8–11, 1929.
No. 536. Seventeenth, Wilmington, Del., September 22–26, 1930.
No. 564. Eighteenth, Richmond, Va. October 5–8, 1931.
No. 577. Nineteenth, Columbus, Ohio, September 26–29, 1932.

Proceedings of annual meetings of the International Association of Public Employment Services

No 192. First, Chicago, December 19 and 20, 1913; second, Indianapolis, September 24 and 25, 1914; third, Detroit, July 1 and 2, 1915.
*No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
No. 311. Ninth, Buffalo, N. Y., September 7–9, 1921.
No. 337. Tenth, Washington, D. C., September 11–13, 1922.
No. 355. Eleventh, Toronto, Canada, September 4–7, 1923.
No. 400. Twelfth, Chicago, Ill., May 19–23, 1924.
No. 414 Thirteenth, Rochester, N. Y., September 15–17, 1925.
No. 478. Fifteenth, Detroit, Mich., October 25–28, 1927.
*No. 501. Sixteenth, Cleveland, Ohio, September 18–21, 1928.
No. 538. Seventeenth, Philadelphia, Pa., September 24–27, 1929, and eighteenth, Toronto, Canada, September 9–12, 1930.

Productivity of labor and technological unemployment

No. 356. Productivity costs in the common-brick industry. [1924.]
No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
*No. 412. Wages, hours, and productivity in the pottery industry, 1925.
No. 441. Productivity of labor in the glass industry. [1927.]
No. 474 Productivity of labor in merchant blast furnaces [1928.]
No. 475 Productivity of labor in newspaper printing. [1929.]
No. 550. Cargo handling and longshore labor conditions. [1932.]
No. 574. Technological changes and employment in the United States Postal Service. [1932.]
No. 585. Labor productivity in the tire industry. [1933.]
No. 593. Technological changes and employment in the electric-lamp industry. [1933.] (In press.)

Retail prices and cost of living

*No. 121. Sugar prices, from refiner to consumer. [1913.]
*No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
*No. 164. Butter prices, from producer to consumer. [1914.]
*No. 170. Foreign food prices as affected by the war. [1915.]
No. 357. Cost of living in the United States. [1924.]
No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
No. 495. Retail prices, 1890 to 1928.

Safety codes

*No. 336. Safety code for the protection of industrial workers in foundries.
No. 350. Rules governing the approval of headlighting devices for motor vehicles.
*No. 351. Safety code for the construction, care, and use of ladders.
No. 375. Safety code for laundry machinery and operations.
*No. 382. Code of lighting school buildings.
No. 410. Safety code for paper and pulp mills.
*No. 430. Safety code for power presses and foot and hand presses.
No. 447. Safety code for rubber mills and calenders.
No. 451. Safety code for forging and hot-metal stamping.

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Safety codes—Continued

No. 463. Safety code for mechanical power-transmission apparatus—first revision.
No. 509. Textile safety code.
No. 512. Code for identification of gas-mask canisters.
No. 519. Safety code for woodworking plants, as revised 1930.
No. 527 Safety code for use, care, and protection of abrasive wheels, as revised 1930.
No. 556. Code of lighting: Factories, mills, and other work places. (Revision of 1930.)
No. 562. Safety codes for the prevention of dust explosions.

Vocational and workers' education (including apprenticeship)

*No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
*No. 162. Vocational education survey of Richmond, Va. [1915.]
*No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
No. 271. Adult working-class education in Great Britain and the United States [1920.]
No. 459. Apprenticeship in building construction. [1928.]

Wages and hours of labor

*No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
*No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
*No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
*No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
*No. 204. Street-railway employment in the United States. [1917.]
*No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
No. 265. Industrial survey in selected industries in the United States, 1919.
No. 297. Wages and hours of labor in the petroleum industry, 1920.
No. 356. Productivity costs in the common-brick industry. [1924.]
No. 358. Wages and hours of labor in the automobile-tire industry, 1923.
No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
*No. 412. Wages, hours, and productivity in the pottery industry, 1925.
No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
No. 484. Wages and hours of labor of common street laborers, 1928.
No. 499. History of wages in the United States from colonial times to 1928.
No. 502. Wages and hours of labor in the motor-vehicle industry, 1928.
No. 514. Pennsylvania Railroad wage data. From Report of Joint Fact Finding Committee in wage negotiations in 1927.
No. 516. Hours and earnings in bituminous-coal mining, 1929.
No. 523. Wages and hours in the manufacture of airplanes and aircraft engines, 1929.
No. 525. Wages and hours of labor in the Portland cement industry, 1929.
No. 532. Wages and hours of labor in the cigarette manufacturing industry, 1930.
No. 534. Labor conditions in the Territory of Hawaii, 1929–1930.
No. 539. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1930.
No. 547. Wages and hours of labor in the cane-sugar refining industry, 1930.
No. 566. Union scales of wages and hours of labor, May 15, 1931.
No. 567. Wages and hours of labor in the iron and steel industry, 1931.
No. 568. Wages and hours of labor in the manufacture of silk and rayon goods, 1931.
No. 570. Wages and hours of labor in foundries and machine shops, 1931.
No. 571. Wages and hours of labor in the furniture industry, 1910 to 1931.
No. 573. Wages and hours of labor in metalliferous mines, 1924 to 1931.
No. 575. Wages and hours of labor in air transportation, 1931.
No. 576. Wages and hours of labor in the slaughtering and meat-packing industry, 1931.
No. 578. Wages and hours of labor in gasoline filling stations and motor-vehicle repair garages, 1931.
No. 579. Wages and hours of labor in the boot and shoe industry, 1910 to 1932.
No. 580. Wages and hours of labor in the bakery industry—bread and cake departments, 1931.
No. 584. Wages and hours of labor in woolen and worsted goods manufacturing, 1932.
No. 586. Wages and hours of labor in the lumber industry, 1932.
No. 587. Wages and hours of labor in the rayon and other synthetic yarn manufacturing, 1932.
No. 588. Wages and hours of labor in the dyeing and finishing of textiles, 1932.
No. 589. Wages and hours of labor in the leather industry, 1932.
No. 591. Wages and hours of labor in the hosiery and underwear industry, 1932. (In press.)
No. 594. Wages and hours of labor in the men's clothing industry, 1932. (In press.)

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*No. 123. Employers' welfare work. [1913.]
No. 222. Welfare work in British munition factories. [1917.]
*No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]
No. 458. Health and recreation activities in industrial establishments, 1926.
No. 565. Park recreation areas in the United States, 1930.

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*No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
*No. 453. Revised index numbers of wholesale prices, 1923 to July, 1927.
No. 572. Wholesale prices, 1931.

Women and children in industry

*No. 116. Hours, earnings, and duration of employment of wages-earning women in selected industries in the District of Columbia. [1913.]
*No. 117. Prohibition of night work of young persons. [1913.]
*No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
*No. 122. Employment of women in power laundries in Milwaukee. [1913.]
*No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
*No. 175. Summary of the report on conditions of woman and child wage earners in the United States. [1915.]

Women and children in industry—Continued

*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
*No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
*No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
*No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
*No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1917.]
*No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
No. 253. Women in the lead industries. [1919.]
No. 467. Minimum-wage legislation in various countries. [1928.]
No. 558. Labor conditions of women and children in Japan. [1931.]

Work of Federal and State departments of labor

No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]
No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1923.]
No. 479. Activities and functions of a State department of labor. [1928.]
No. 599. What are labor statistics for? [1933.]

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*No. 101. Care of tuberculous wage earners in Germany. [1912.]
*No. 102. British national insurance act, 1911.
No. 103. Sickness and accident insurance law in Switzerland. [1912.]
No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
*No. 155. Compensation for accidents to employees of the United States. [1914.]
*No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D.C., December 5–9, 1916.
*No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
No. 312. National health insurance in Great Britain, 1911 to 1921.
*No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
No. 496. Workmen's compensation legislation of the United States and Canada as of January 1, 1929. (With text of legislation enacted in 1927 and 1928.)
No. 529. Workmen's compensation legislation of the Latin American countries. [1930.]

Miscellaneous series

*No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
No. 208. Profit sharing in the United States. [1916.]
No. 242. Food situation in central Europe, 1917.
No. 254. International labor legislation and the society of nations. [1919.]
*No. 268. Historical survey of international action affecting labor. [1920.]
No. 346. Humanity in government. [1923.]
No. 398. Growth of legal-aid work in the United States. [1926.]
No. 401. Family allowances in foreign countries. [1926.]
No. 518. Personnel research agencies. 1930 edition.
No. 541. Handbook of labor statistics. 1931 edition.
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